STATE OF UTAH  DEPARTMENT OF NATURAL RESOURCES  DIVISION OF OIL, GAS AND MINING								FORI	_	
APPLICATION FOR PERMIT TO DRILL							1. WELL NAME and NUMBER Bonanza 1023-8J3			
2. TYPE OF WORK  DRILL NEW WELL	REENTER P8	3A WELL DEEPE	N WELI	L(I)			3. FIELD OR WILDCAT  NATURAL BUTTES			
<b>4. TYPE OF WELL</b> Gas We	ll Coalb	ped Methane Well: NO					5. UNIT or COMMUI	NITIZATION AGRE	MENT NAME	
6. NAME OF OPERATOR KERR	-MCGEE OIL & (	GAS ONSHORE, L.P.					7. OPERATOR PHON	<b>NE</b> 720 929-6587		
8. ADDRESS OF OPERATOR P.O	. Box 173779, D	Denver, CO, 80217					9. OPERATOR E-MA mary.me	IL ondragon@anadarko	.com	
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)		11. MINERAL OWNE	IAN (	_	=	FEE (iii)	12. SURFACE OWN		FEE (III)	
UTU 37355  13. NAME OF SURFACE OWNER (if box 12	= 'fee')	FEDERAL ( IND	JAN (	į SIAIE (			FEDERAL INI			
15. ADDRESS OF SURFACE OWNER (if box							16. SURFACE OWNE			
<u> </u>		18. INTEND TO COM	MING	I E PRODUCT	TON		19. SLANT	•	,	
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')		MULTIPLE FORMATI	IONS	gling Applicat		NO (iii)				
				1					DRIZONTAL (	
20. LOCATION OF WELL		OOTAGES		TR-QTR		SECTION	TOWNSHIP	RANGE	MERIDIAN	
LOCATION AT SURFACE		SL 2247 FEL		NWSE		8	10.0 S	23.0 E	S	
Top of Uppermost Producing Zone		SL 2247 FEL		NWSE		8	10.0 S	23.0 E	S	
At Total Depth  21. COUNTY	15/9 F	SL 2247 FEL  22. DISTANCE TO N		NWSE	IE (Ea	8	10.0 S 23. NUMBER OF AC	23.0 E	S	
UINTAH			1!	579			320			
		25. DISTANCE TO N (Applied For Drilling	g or Co		AME	POOL	<b>26. PROPOSED DEPTH</b> MD: 8230 TVD: 8230			
27. ELEVATION - GROUND LEVEL 5332		28. BOND NUMBER	WYB0	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPL: Permit #43-8496			F APPLICABLE			
		A <sup>-</sup>	TTACH	IMENTS		,				
VERIFY THE FOLLOWING	ARE ATTACH	IED IN ACCORDAN	CE W	ITH THE UT	ТАН	OIL AND G	AS CONSERVATI	ON GENERAL RU	ILES	
WELL PLAT OR MAP PREPARED BY	LICENSED SUF	RVEYOR OR ENGINEE	R	<b>№</b> сом	IPLET	E DRILLING	PLAN			
AFFIDAVIT OF STATUS OF SURFACE	OWNER AGRE	EEMENT (IF FEE SURF	ACE)	FORM	ч 5. І	IF OPERATOR	IS OTHER THAN T	HE LEASE OWNER		
DIRECTIONAL SURVEY PLAN (IF DI	RECTIONALLY	OR HORIZONTALLY		<b>№</b> торо	OGRA	PHICAL MAP				
NAME Danielle Piernot	T	ITLE Regulatory Analys	t			<b>PHONE</b> 720	929-6156			
SIGNATURE	D	<b>ATE</b> 06/19/2009				EMAIL danie	lle.piernot@anadarko	.com		
<b>API NUMBER ASSIGNED</b> 43047504980000	A	PPROVAL				Perm	C C C C C C C C C C C C C C C C C C C			

API Well No: 43047504980000 Received: 6/19/2009

	Proposed Hole, Casing, and Cement							
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)				
Prod	7.875	4.5	0	8230				
Pipe	Grade	Length	Weight					
	Grade I-80 LT&C	8230	11.6			Г		

API Well No: 43047504980000 Received: 6/19/2009

Proposed Hole, Casing, and Cement							
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)			
Surf	12.25	9.625	0	2055			
Pipe	Grade	Length	Weight				
	Grade J-55 LT&C	2055	36.0			Г	

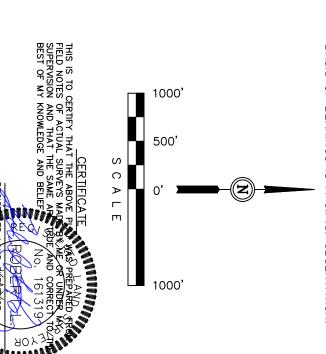
# Onshore

ĘP

shown in the NW 1/4 SE 1/4 of Section 8, Well location, BONANZA #1023-08J3, located as T10S,

BENCH MARK (58 EAM) LOCATED IN THE NE 1/4 OF SECTION 30, T9S, R23E, S.L.B.&M. TAKEN FROM THE RED WASH SE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5132 FEET.

OBSERVATION.



PLAT

Gas Onshore LP

DATE DRAWN:

11-10-08

#### **Bonanza 1023-8J3**

Pad: Bonanza 1023-8J Surface: 1,579' FSL, 2,247' FEL (NW/4SE/4) Sec. 8 T10S R23E

> Uintah, Utah Mineral Lease: UTU 37355

#### **ONSHORE ORDER NO. 1**

#### DRILLING PROGRAM

# 1. – 2. Estimated Tops of Important Geologic Markers: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	Resource
Uinta	0 – Surface	
Green River	1,145'	
Birds Nest	1,358'	Water
Mahogany	1,855'	Water
Wasatch	3,760'	Gas
Mesaverde	5,822'	Gas
MVU2	7,011'	Gas
MVL1	7,560'	Gas
TD	8.230'	

#### 3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program.

#### 4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

#### 5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program.

#### **Evaluation Program:**

Please refer to the attached Drilling Program.

#### 7. <u>Abnormal Conditions</u>:

Maximum anticipated bottomhole pressure calculated at 8,230' TD, approximately equals 4,914 psi (calculated at 0.6 psi/foot).

Maximum anticipated surface pressure equals approximately 3,103 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

#### 8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

#### 9. Variances:

Please refer to the attached Drilling Program.

*Onshore Order #2 – Air Drilling Variance* 

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

#### **Background**

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

#### Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

#### Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

#### **Conclusion**

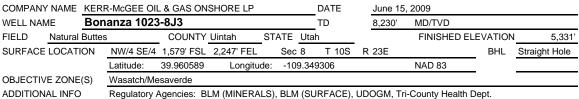
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

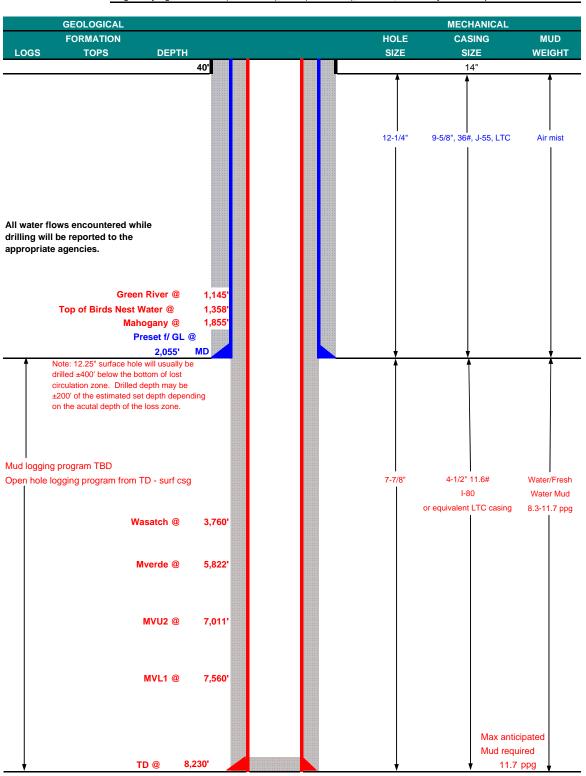
#### 10. Other Information:

Please refer to the attached Drilling Program.



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM







#### **KERR-McGEE OIL & GAS ONSHORE LP**

#### **DRILLING PROGRAM**

#### **CASING PROGRAM**

									ESIGN FACT	ORS
	SIZE	IN	ΓERVA	L	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"		0-40'							
								3,520	2,020	453,000
SURFACE	9-5/8"	0	to	2055	36.00	J-55	LTC	1.10*	2.10	6.12
								7,780	6,350	201,000
PRODUCTION	4-1/2"	0	to	8230	11.60	I-80	LTC	2.43	1.27	2.56

\*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above.

DF = 2.72

- 1) Max Anticipated Surf. Press.(MASP) (Surf Csg) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac grad x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.7 ppg) 0.22 psi/ft = gradient for partially evac wellbore (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MASP 3,103 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 11.7 ppg) 0.6 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MABHP 4,914 psi

#### **CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	380	0%	15.60	1.18
		+ 2% CaCl + 0.25 pps flocele				
		Premium cmt + 2% CaCl				
SURFACE		NOTE: If well will circulate water to sur	face, optic	n 2 will be	utilized	
Option 2 LEAD	1,555'	Prem cmt + 16% Gel + 10 pps gilsonite	180	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOC				
TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION LEAD	3,260'	Premium Lite II + 0.25 pps celloflake +	310	40%	11.00	3.38
		5 pps gilsonite + 10% gel '+ 1% Retarder				
TAIL	4,970'	50/50 Poz/G + 10% salt + 2% gel	1220	40%	14.30	1.31
		+ 0.1% R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.

**PRODUCTION** 

Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

#### ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

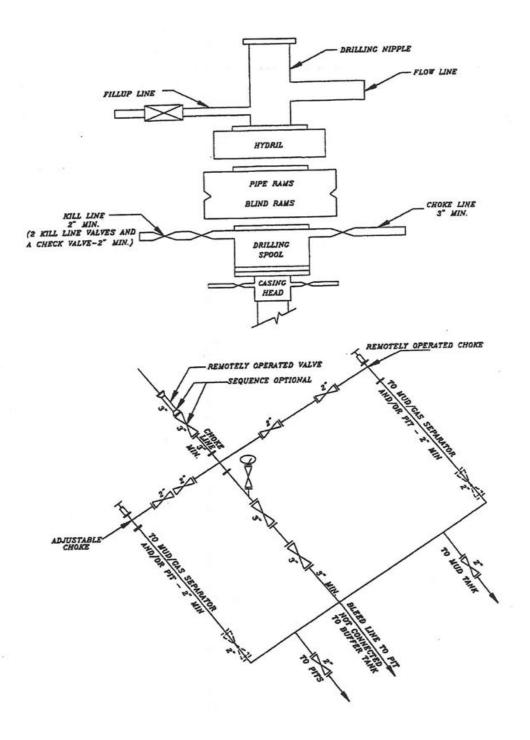
Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utilized.

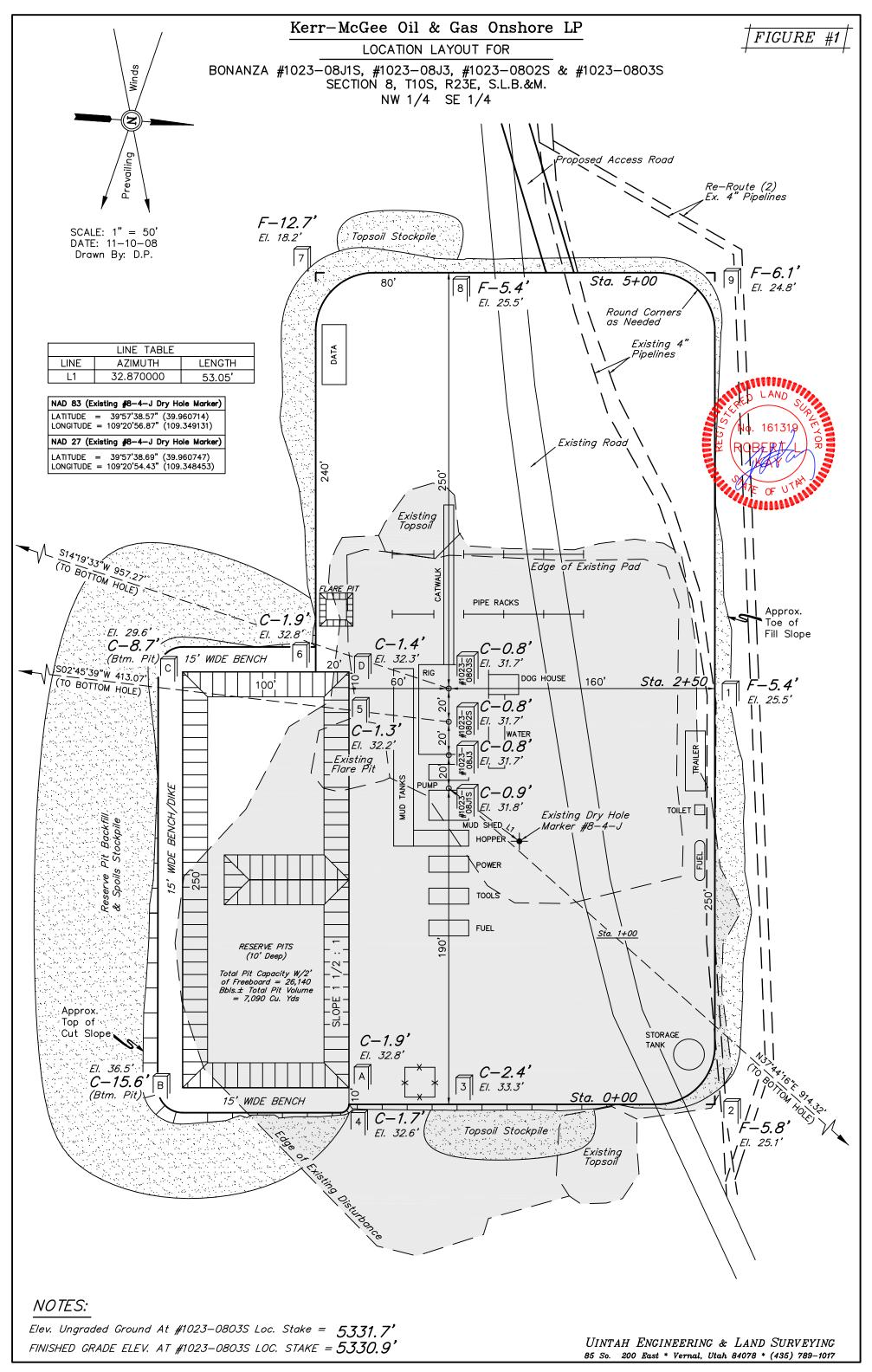
DRILLING ENGINEER:		DATE:	
	John Huycke / Emile Goodwin		
DRILLING SUPERINTENDENT:		DATE:	
	John Merkel / Lovel Young		

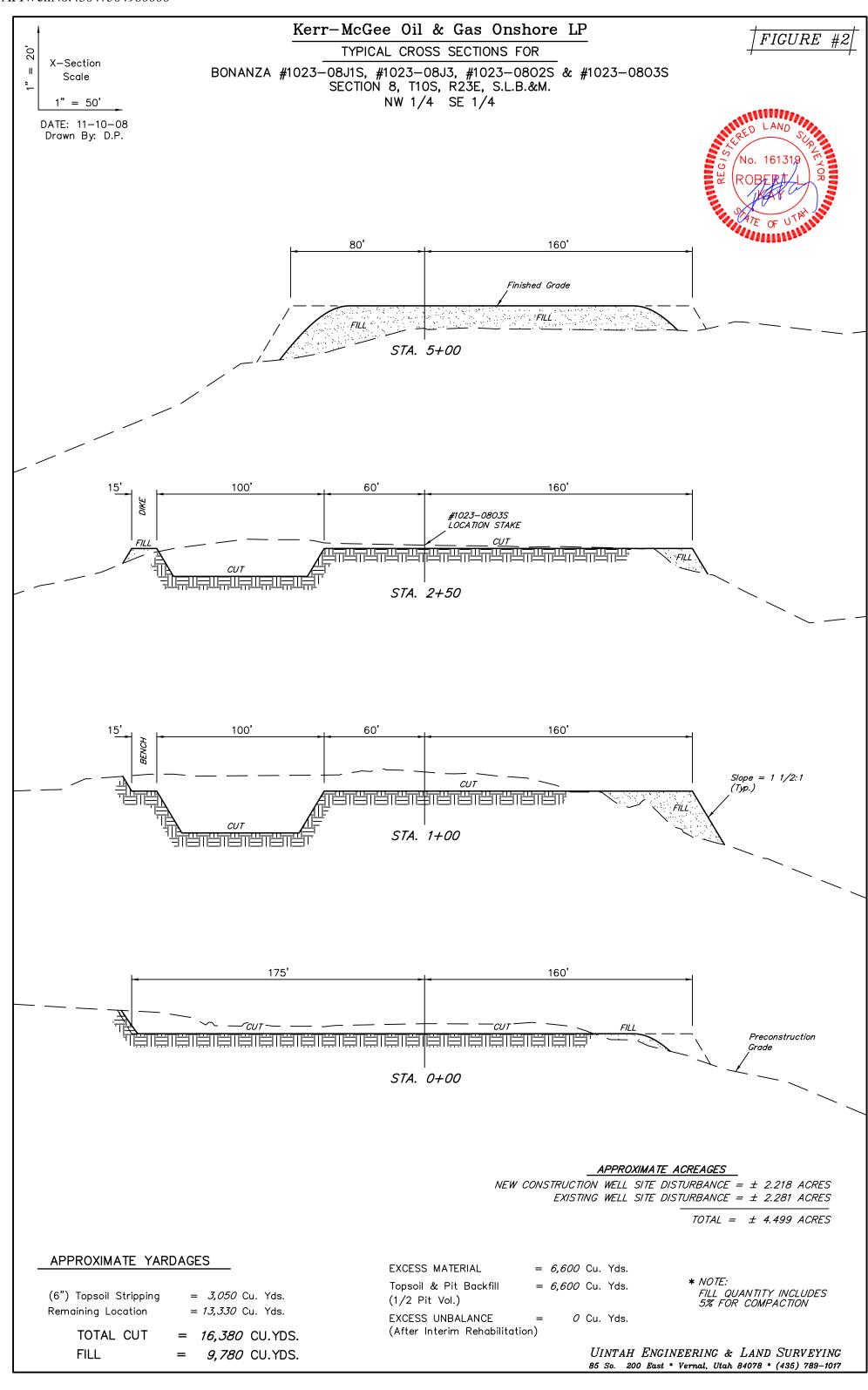
<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

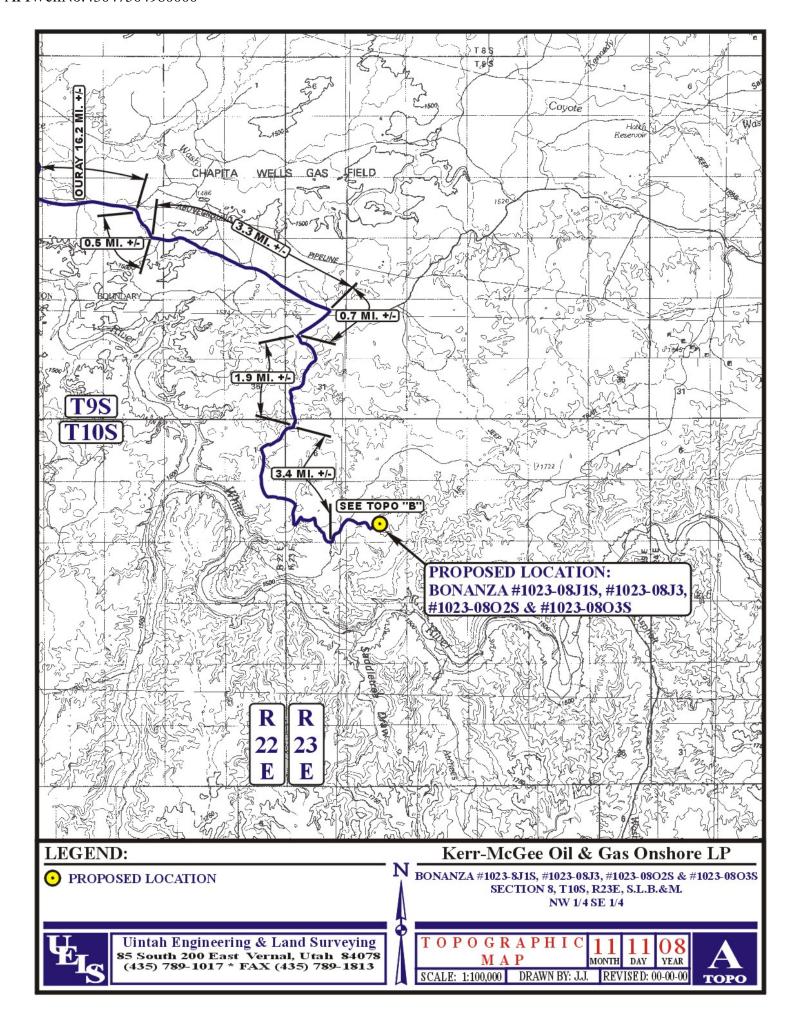
EXHIBIT A Bonanza 1023-8J3

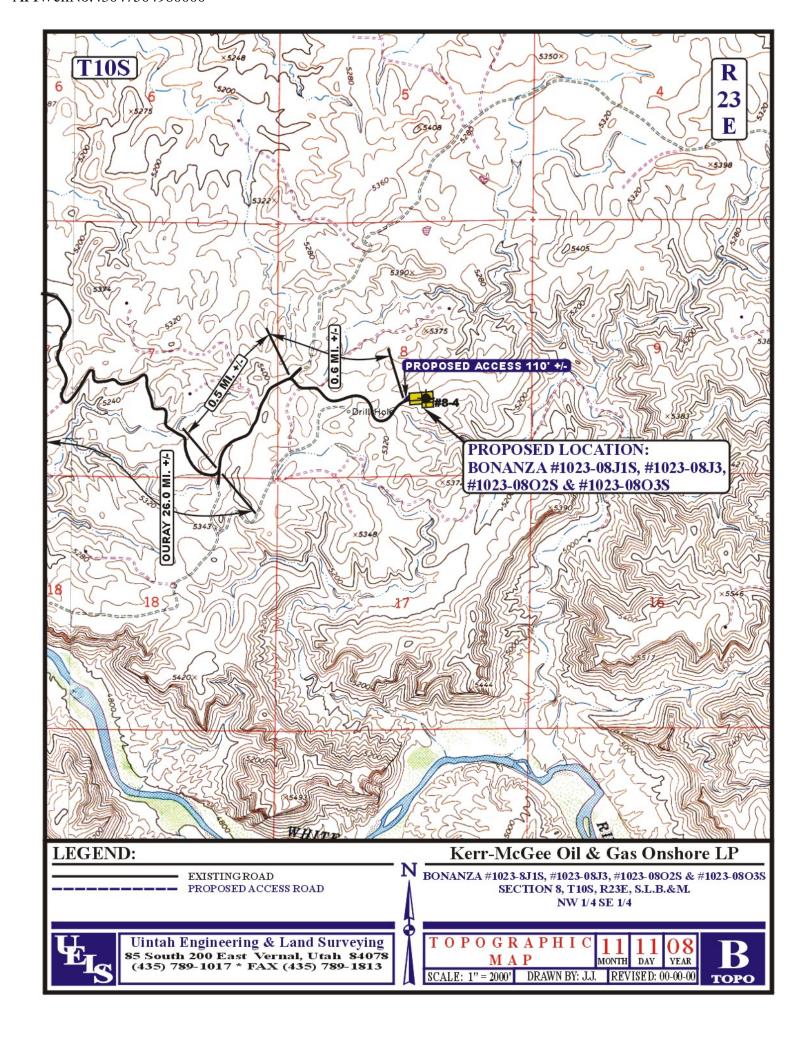


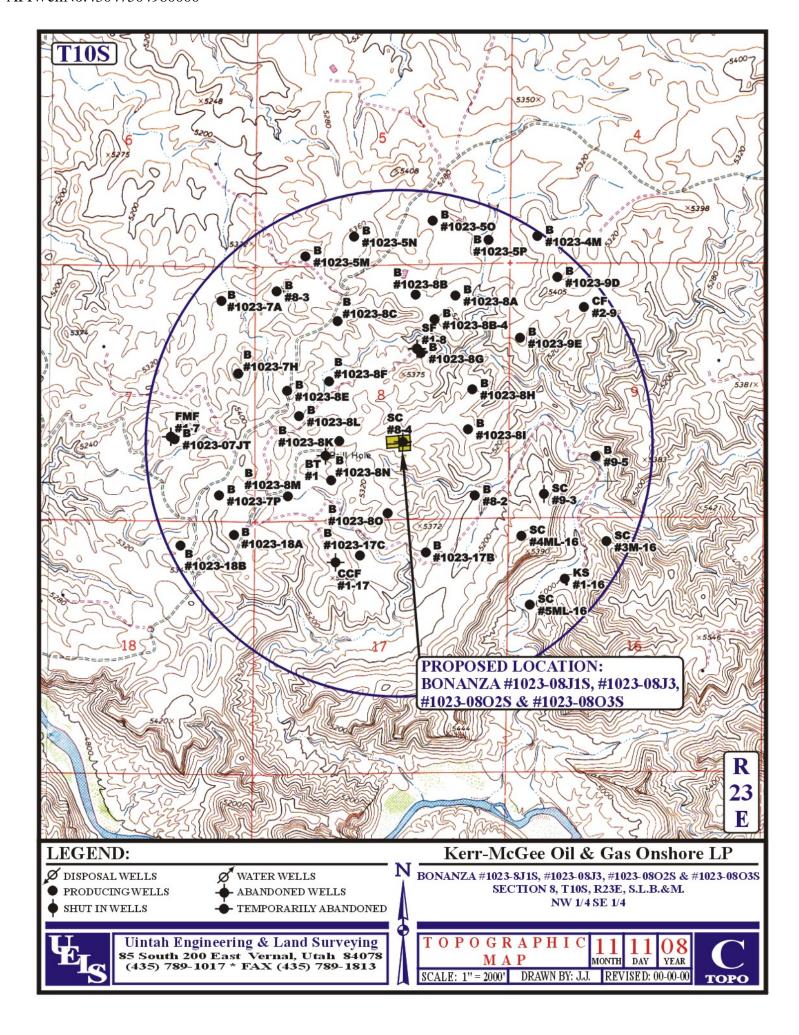
SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

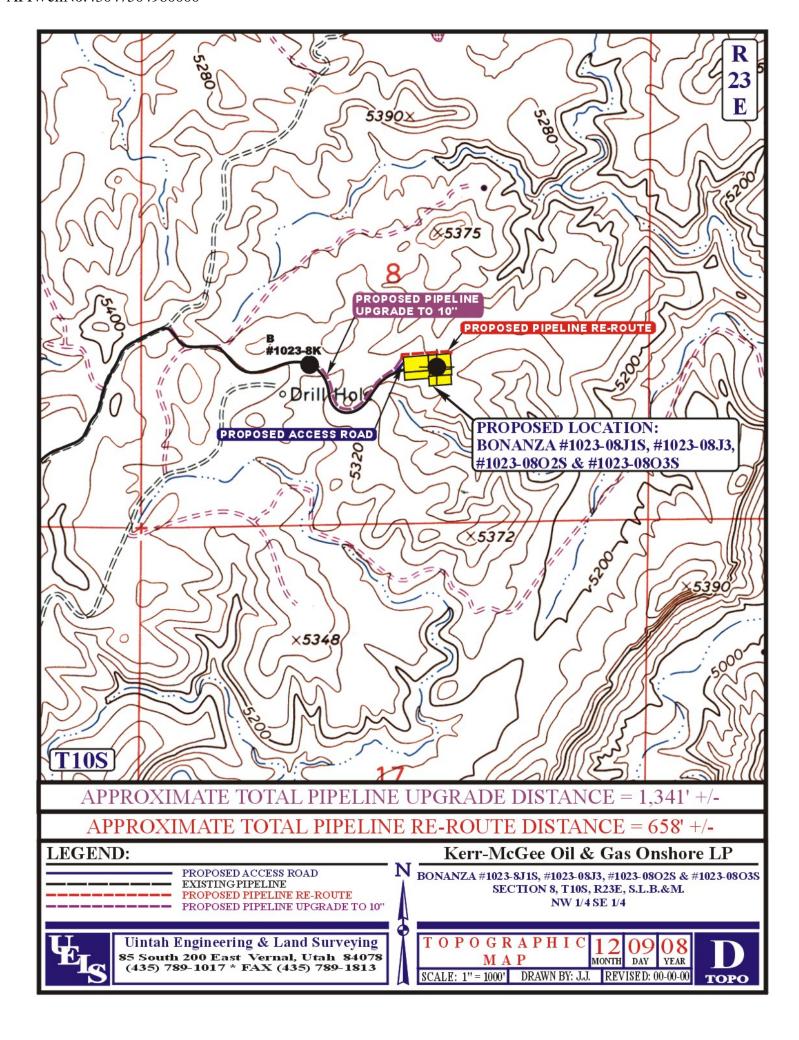












# Kerr-McGee Oil & Gas Onshore LP

BONANZA #1023-08J1S, #1023-08J3, #1023-08O2S & #1023-08O3S

LOCATED IN UINTAH COUNTY, UTAH SECTION 8, T10S, R23E, S.L.B.&M.

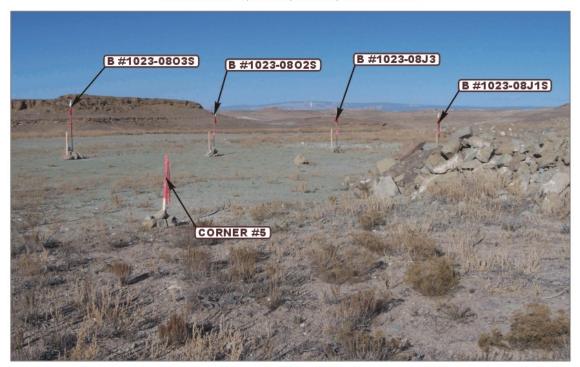


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKES

CAMERA ANGLE: NORTHERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: NORTHEASTERLY





# Kerr-McGee Oil & Gas Onshore LP BONANZA #1023-8J1S, #1023-08J3, #1023-08O2S & #1023-08O3S SECTION 8, T10S, R23E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 0.3 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 12.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH: TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 1.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE TURN LEFT AND PROCEED IN AN EASTERLY APPROXIMATELY 1.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND AN EASTERLY. THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 3.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 0.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND IN A SOUTHEASTERLY, THEN **SOUTHERLY** APPROXIMATELY 1.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY, **THEN** SOUTHERLY. THEN SOUTHERLY. SOUTHEASTERLY DIRECTION APPROXIMATELY 3.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST: TURN RIGHT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.6 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE NORTHEAST: FOLLOW ROAD FLAGS IN A NORTHEASTERLY DIRECTION APPROXIMATELY 110' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 58.1 MILES.

#### **Bonanza 1023-8J1S**

Surface: 1,580' FSL, 2,227' FEL (NW/4SE/4) BHL: 2,300' FSL 1,670' FEL (NW/4SE/4)

#### **Bonanza 1023-8J3**

Surface: 1,579' FSL, 2,247' FEL (NW/4SE/4)

#### **Bonanza 1023-802S**

Surface: 1,577' FSL, 2,267' FEL (NW/4SE/4) BHL: 1,165' FSL 2,285' FEL (SW/4SE/4)

#### **Bonanza 1023-803S**

Surface: 1,576' FSL, 2,287' FEL (NW/4SE/4) BHL: 650' FSL 2,520' FEL (SW/4SE/4)

Pad: Bonanza 1023-8J Sec. 8 T10S R23E

Uintah, Utah Mineral Lease: UTU 37355

#### ONSHORE ORDER NO. 1

#### MULTI-POINT SURFACE USE & OPERATIONS PLAN SUBMITTED WITH SITE-SPECIFIC INFORMATION

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) documents. An NOS was submitted in December, 2008 showing the surface locations in NW/4 SE/4 of Section 8 T10S R23E.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BLM-Vernal Field Office.

An on-site meeting was held on February 3, 2009. Present were:

- Verlyn Pindell, Dave Gordon, Scott Ackerman, Karl Wright BLM;
- David Kay Uintah Engineering & Land Surveying;
- Kolby Kay 609 Consulting, LLC
- Tony Kazeck, Clay Einerson, Raleen White, Ramey Hoopes, Grizz Oleen, Charles Chase and Spencer Biddle Kerr-McGee.

#### Bonanza 1023-8J1S / 8J3/ 8O2S/ 8O3S

#### **Directional Drilling:**

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

#### 1. Existing Roads:

- A) Refer to Topo Map A for directions to the location.
- B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.
- C) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

#### 2. Planned Access Roads:

See MDP for additional details on road construction.

Approximately  $\pm 0.02$  miles ( $\pm 110$ ') of new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

#### 3. <u>Location of Existing Wells Within a 1-Mile Radius:</u>

Please refer to Topo Map C.

#### 4. Location of Existing and Proposed Facilities:

See MDP for additional details on Existing and Proposed Facilities.

The following guidelines will apply if the well is productive.

Approximately  $\pm 1,341$ ' of existing pipeline needs to be upgraded to 10" and approximately  $\pm 658$ ' of existing pipeline needs to be re-routed. Refer to Topo D for the existing pipeline. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place

#### 5. <u>Location and Type of Water Supply:</u>

See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, Application number 53617. Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

#### **6.** Source of Construction Materials:

See MDP for additional details on Source of Construction Materials.

#### 7. <u>Methods of Handling Waste Materials</u>:

See MDP for additional details on Methods of Handling Waste Materials.

#### Bonanza 1023-8J1S / 8J3/ 8O2S/ 8O3S

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E

NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E

Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

#### 8. <u>Ancillary Facilities</u>:

See MDP for additional details on Ancillary Facilities.

None are anticipated.

#### **9. Well Site Layout:** (See Location Layout Diagram)

See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

#### 10. Plans for Reclamation of the Surface:

See MDP for additional details on Plans for Reclamation of the Surface.

#### 11. Surface/Mineral Ownership:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

#### 12. <u>Other Information</u>:

See MDP for additional details on Other Information.

# 'APIWellNo:43047504980000'

#### 13. Lessee's or Operators' Representative & Certification:

Kathy Schneebeck Dulnoan Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6007 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720-929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot

June 16, 2009

Date

#### CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S 43 PROPOSED WELL LOCATIONS (T10S, R23E, SECTIONS 5, 6, 7, 8, AND 10) UINTAH COUNTY, UTAH

By:

Nicole Shelnut

Prepared For:

Bureau of Land Management Vernal Field Office

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP 1368 South 1200 East Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc. P.O. Box 219 Moab, Utah 84532

MOAC Report No. 08-331

February 26, 2009

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

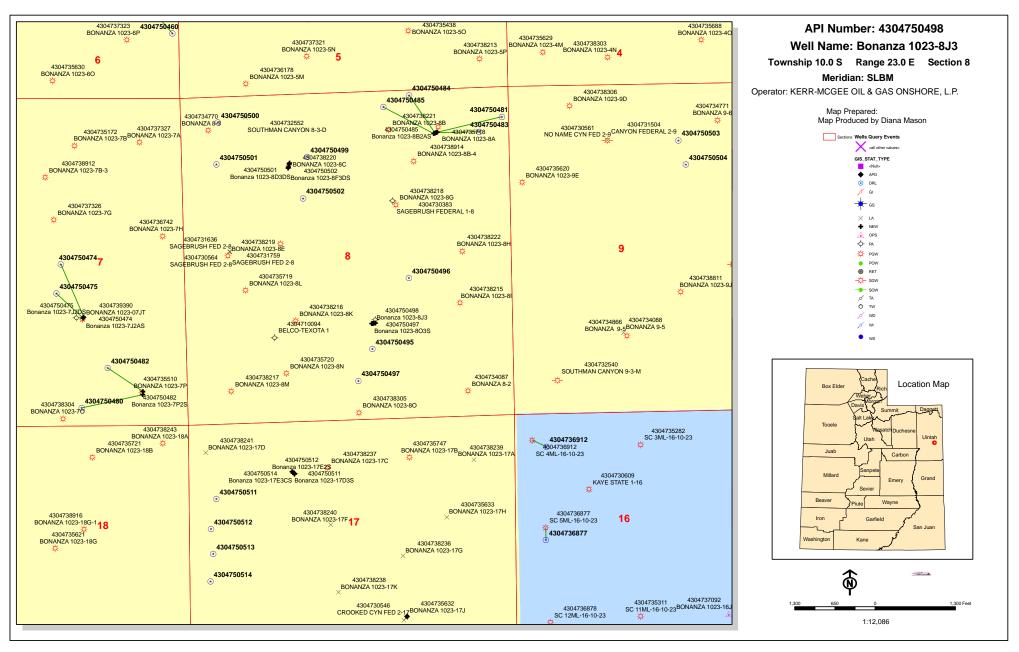
## Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Multi-Wells and Pipeline Upgrades for "Bonanza #1023-08J1S, J3, 02S & 03S" and "Bonanza #1023-17D3S, E2S, F1S & F4S" (Sec. 7, 8 & 17, T 10 S, R 23 E)

> Asphalt Wash Topographic Quadrangle Uintah County, Utah

December 17, 2008

Prepared by Stephen D. Sandau Paleontologist for Intermountain Paleo-Consulting P. O. Box 1125 Vernal, Utah 84078



# WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED:	6/19/2009	API NO. ASSIGNED: 43	047504980000
WELL NAME:	Bonanza 1023-8J3		
OPERATOR:	KERR-MCGEE OIL &	& GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 72	.0 929-6156
CONTACT:	Danielle Piernot		
PROPOSED LOCATION:	NWSE 8 100S 230E	Permit Tech Review:	<u>/</u>
SURFACE:	1579 FSL 2247 FEL	Engineering Review:	
воттом:	1579 FSL 2247 FEL	Geology Review:	<u>r</u>
COUNTY:	UINTAH		
LATITUDE:	39.96045	LONGITUDE: -10	09.34870
<b>UTM SURF EASTINGS:</b>	641043.00	NORTHINGS: 44	24463.00
FIELD NAME:	NATURAL BUTTES		
LEASE TYPE:	1 - Federal		
LEASE NUMBER:	UTU 37355	PROPOSED PRODUCING FORMATION(S): WASATCH-MESA	VERDE
SURFACE OWNER:	1 - Federal	COALBED METHANE: NO	)
RECEIVED AND/OR REVIE	EWED:	LOCATION AND SITING:	
<b>₽</b> PLAT		R649-2-3.	
<b>▶ Bond:</b> FEDERAL - WYB	000291	Unit:	
Potash		R649-3-2. General	
Oil Shale 190-5			
Oil Shale 190-3		R649-3-3. Exception	
Oil Shale 190-13		✓ Drilling Unit	
<b>✓</b> Water Permit: Permit	#43-8496	<b>Board Cause No:</b> Cause 179-14	
RDCC Review:		Effective Date: 6/12/2008	
Fee Surface Agreeme	ent	Siting: 460' fr ext. drilling unit boundary	
<b>✓</b> Intent to Commingle		R649-3-11. Directional Drill	
Commingling Approved	t		
Comments: Presite C	ompleted		
Stipulations: 3 - Com 4 - Fede	mingling - ddoucet ral Approval - dmasc	on	



### State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

#### Permit To Drill

\*\*\*\*\*\*

**Well Name:** Bonanza 1023-8J3 **API Well Number:** 43047504980000

Lease Number: UTU 37355 Surface Owner: FEDERAL Approval Date: 6/30/2009

#### **Issued to:**

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

#### **Authority:**

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 179-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

#### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

#### **Commingle:**

In accordance with Board Cause No. 179-14 commingling the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### **Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

#### **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)
OR

API Well No: 43047504980000

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov

#### **Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

**Approved By:** 

Gil Hunt

Associate Director, Oil & Gas

Til Hut

Form 3160-3 (August 2007)

# RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JUN 3 2009

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

# APPLICATION FOR PERMIT TO DRILL OR REENTEBLM

Lease Serial No. UTU37355

6. If Indian, Allottee or Tribe Name

		_}
1a. Type of Work: DRILL REENTER		7. If Unit or CA Agreement, Name and No.
		8. Lease Name and Well No.
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Oth	er Single Zone Multiple Zone	BONANZA 1023-8J3
2. Name of Operator Contact: KERRMCGEE OIL&GAS ONSHORE-NAS: Danielle	DANIELLE E PIERNOT Piernot@anadarko.com	9. API Well No.
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
PO BOX 173779 DENVER, CO 80202-3779	Ph: 720-929-6156 Fx: 720-929-7156	NATURAL BUTTES
4. Location of Well (Report location clearly and in accorded	ance with any State requirements.*)	11. Sec., T., R., M., or Blk. and Survey or Area
At surface NWSE 1579FSL 2247FEL	39.96059 N Lat, 109.34931 W Lon	Sec 8 T10S R23E Mer SLB
At proposed prod. zone NWSE 1579FSL 2247FEL	39.96059 N Lat, 109.34931 W Lon	
14. Distance in miles and direction from nearest town or post APPROXIMATELY 27 MILES SOUTHEAST OF		12. County or Parish 13. State UINTAH UT
15. Distance from proposed location to nearest property or	16. No. of Acres in Lease	17. Spacing Unit dedicated to this well
lease line, ft. (Also to nearest drig. unit line, if any) 1579 FEET	1920.00	320.00
18. Distance from proposed location to nearest well, drilling,	19. Proposed Depth	20. BLM/BIA Bond No. on file
completed, applied for, on this lease, ft. APPROXIMATELY 915 FEET	8230 MD 7560 TVD	WYB000291
21. Elevations (Show whether DF, KB, RT, GL, etc. 5332 GL	<ol> <li>Approximate date work will start 07/14/2009</li> </ol>	23. Estimated duration 60-90 DAYS
	24. Attachments	
The following, completed in accordance with the requirements of	of Onshore Oil and Gas Order No. 1, shall be attached	to this form:
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Syst</li> </ol>	Item 20 above)	ions unless covered by an existing bond on file (see
SUPO shall be filed with the appropriate Forest Service Of	fice).  6. Such other site specific i authorized officer.	nformation and/or plans as may be required by the
25. Signature (Electronic Submission)	Name (Printed/Typed) DANIELLE E PIERNOT Ph: 720-929-6	Date 06/19/2009
· · · · · · · · · · · · · · · · · · ·		00/10/2000
Title REGULATORY ANALYST		
Approved by (Signature)	Name (Printed/Typed)	Date
Tile Majorant Field Majorand	office Stephanie J Howa	vd 12/16/09
Assistant Field Manager Lands & Mineral Resources	VERNAL FIELD	
Application approval does not warrant or certify the applicant hoperations thereon.	olds legal or equitable title to those rights in the subject	t lease which would entitle the applicant to conduct
Conditions of approval, if any, are attached.	CONDITIONS OF APPROVAL AT	TACHED
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212		

Additional Operator Remarks (see next page)

NOTICE OF APPROVAL

Electronic Submission #71196 verified by the BLM Well Information System For KERRMCGEE OIL&GAS ONSHORE LP, sent to the Vernal Committed to AFMSS for processing by GAIL JENKINS on 06/24/2009 ()

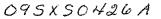
DEC 2 4 2000

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DEL 2 4 2003

DIV. OF OIL, GAS & MINING





States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NOS: 12-29-2008



#### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

VERNAL, UT 84078

(435) 781-4400



#### CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

API No:

Kerr McGee Oil & Gas Onshore

Bonanza 1023-8J3

43-047-50498

Location: Lease No: NWSE, Sec. 8, T10S, R23E

UTU-37355

Agreement:

N/A

**OFFICE NUMBER:** 

(435) 781-4400

**OFFICE FAX NUMBER:** 

(435) 781-3420

# A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit was processed using a 390 CX tied to NEPA approved 2/5/2007. Therefore, this permit is approved for a two (2) year period OR until lease expiration OR the well must be spud by 2/5/2012 (5 years from the NEPA approval date), whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

#### **NOTIFICATION REQUIREMENTS**

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut vn opreport@blm.gov.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

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DEC 2 4 2(1)

Page 2 of 6 Well: Bonanza 1023-8J3 12/4/2009

#### SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
  work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
  mitigation may be necessary for the discovered paleontologic material before construction can
  continue.
- The following seed mix will be used for Interim Reclamation

Interim Reclamation seed mix		
Ephraim crested wheatgrass	Agropyron cristatum v. Epharim	1 lbs. /acre
Bottlebrush squirreltail	Elymus elymoides	1 lbs. /acre
Siberian wheatgrass	Agropyron fragile	1 lbs. /acre
Western wheatgrass	Agropyron smithii	1 lbs. /acre
Scarlet globemallow	Spaeralcea coccinea	1 lbs. /acre
Shadscale	Atriplex confertifolia	2 lbs. /acre
Fourwing saltbush	Atriplex canescens	2 lbs. /acre
_		

Seed shall be applied with a rangeland drill, unless topography and /or rockiness precludes the use of equipment. Seed shall be applied between August 15 and ground freezing. All seed rates are in terms of Pure Live Seed. Operator shall notify the Authorized Officer when seeding has commenced, and shall retain all seed tags.

- The operator will control noxious weeds along the well pad, access road, and the pipeline route by spraying or mechanical removal. On BLM administered land, a Pesticide Use Proposal (PUP) will be submitted and approved prior to the application of herbicides or pesticides or possibly hazardous chemicals.
- All permanent (on-site six months or longer), above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee. All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) would be excluded. The requested color is Shadow Gray as determined during the on-site inspection.
- As agreed upon the onsite the pit will be lined with double felt.

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DEC 2 4 2000

#### DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### SITE SPECIFIC DOWNHOLE COAs:

- A formation integrity test shall be performed at the surface casing shoe.
- A Gama Ray Log shall be run from TD to surface.

#### Variances Granted:

#### Air Drilling:

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for two truck/trailer mounted air compressors located within 40 feet from the well bore and 60' from the blooie line.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for kill fluid.
- Automatic igniter. Variance granted for igniter due to there being no productive formations while drilling with air.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

#### DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and NOT by the rig pumps. Test shall be reported in the driller's log.

Page 4 of 6 Well: Bonanza 1023-8J3 12/4/2009

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
   Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

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#### **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
  notified when it is placed in a producing status. Such notification will be by written communication
  and must be received in this office by not later than the fifth business day following the date on
  which the well is placed on production. The notification shall provide, as a minimum, the following
  informational items:

o Operator name, address, and telephone number.

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DEC 2 4 2000

Well name and number.

DIV. OF OIL, GAS & MINING

- Well location (¼¼, Sec., Twn, Rng, and P.M.).
- Date well was placed in a producing status (date of first production for which royalty will be paid).
- o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
- o The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
- Unit agreement and/or participating area name and number, if applicable.
- Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1.
   Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4.

Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
  Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
  future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
  BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
  hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
  be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
  lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
  suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
  obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior approval
  of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
  approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
  of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

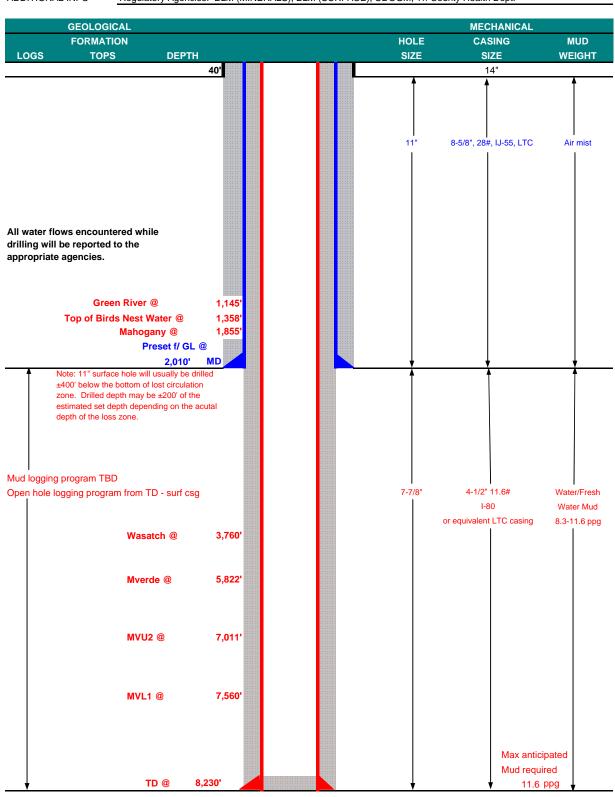
DEC 2 4 2003

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 37355
SUND	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	sals to drill new wells, significantly deepen e ugged wells, or to drill horizontal laterals. Use		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: Bonanza 1023-8J3		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	9. API NUMBER: 43047504980000		
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1579 FSL 2247 FEL	COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWSE Section: 8	STATE: UTAH		
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	☐ ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start: 1/28/2010	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
1/20/2010	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	L DEEPEN L	FRACTURE TREAT	☐ NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	□ TUBING REPAIR     □ WATER SHUTOFF	UVENT OR FLARE  SI TA STATUS EXTENSION	☐ WATER DISPOSAL ☐ APD EXTENSION
DRILLING REPORT Report Date:		_	
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
Kerr-McGee Oil & ( change the surface of surface casing depth surface casing size attached drilling proof the same. Please	MPLETED OPERATIONS. Clearly show all pertings on Shore LP (Kerr-McGee) recasing for this well due to revise is changing FROM: 2,055' TO: is changing FROM: 9-5/8" TO: gram for additional details. All of contact the undersigned with a comments. Thank you.	espectfully requests to ed drilling practices. The 2,010'. Additionally, the 8-5/8". Please see the other information remains any questions and/or <b>D</b>	Accepted by the Utah Division of Oil, Gas and Mining ate: January 26, 2010
NAME (PLEASE PRINT) Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	TITLE Regulatory Analyst	
SIGNATURE N/A		DATE 1/26/2010	



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPAN	Y NAME KERI	R-McGEE OII	_ & GAS ON	SHORE LP		DATE	Januar	y 26, 2010		
WELL NA	ME Bon	anza 1023	3-8J3			TD	8,230'	MD/TVD		
FIELD	Natural Buttes	;	COUNTY	Uintah	STATE	Utah	, <u> </u>	FINISHED EL	EVATION	N 5,331'
SURFACE	LOCATION	NW/4 SE/4	1,579' FSL	2,247' FEL	Sec	8 T 10S	R 23E		BHL	Straight Hole
		Latitude:	39.960589	Longitu	de: -10	9.349306		NAD 83	_	
OBJECTI	VE ZONE(S)	Wasatch/Me	esaverde						=	
ADDITION	NAL INFO	Regulatory /	Agencies: Bl	M (MINERA	LS), BLM	(SURFACE),	UDOGM, T	ri-County Health D	Dept.	





#### **KERR-McGEE OIL & GAS ONSHORE LP**

#### **DRILLING PROGRAM**

#### **CASING PROGRAM**

									DESIGN FACT	ORS
	SIZE	IN	ΓERVA	Ļ	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"		0-40'							
								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2010	28.00	IJ-55	LTC	1.07	2.00	6.12
								7,780	6,350	201,000
PRODUCTION	4-1/2"	0	to	8230	11.60	I-80	LTC	2.47	1.28	2.41

\*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above.

D.F. = 2.68

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.6 ppg)
(Collapse Assumption: Fully Evacuated Casing, Max MW)

0.22 psi/ft = gradient for partially evac wellbore

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MASP 3,060 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 11.6 ppg)
(Collapse Assumption: Fully Evacuated Casing, Max MW)

0.59 psi/ft = bottomhole gradient

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MABHP 4,871 psi

## CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1		+ .25 pps flocele				
TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	40		15.60	1.18
		+ 2% CaCl + .25 pps flocele				
TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		NOTE: If well will circulate water to se	urface, opt	ion 2 will be	e utilized	
Option 2 LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	140	35%	11.00	3.82
		+.25 pps Flocele + 3% salt BWOC				
TAIL	500	Premium cmt + 2% CaCl	150	35%	15.60	1.18
		+ .25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION LEAD	3,260'	Premium Lite II + 3% KCI + 0.25 pps	280	60%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	4,970'	50/50 Poz/G + 10% salt + 2% gel	1,390	60%	14.30	1.31
		+ 0.1% R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### **FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.

**PRODUCTION** 

Float shoe, 1 it, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

#### ADDITIONAL INFORMATION

DRILLING SUPERINTENDENT:

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Drop Totco surveys every 2000'.	Maximum allowable	hole angle is 5	dearees

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utililzed.

DRILLING ENGINEER:		DATE:	
	John Huycke / Emile Goodwin	•	<u> </u>

DATE:

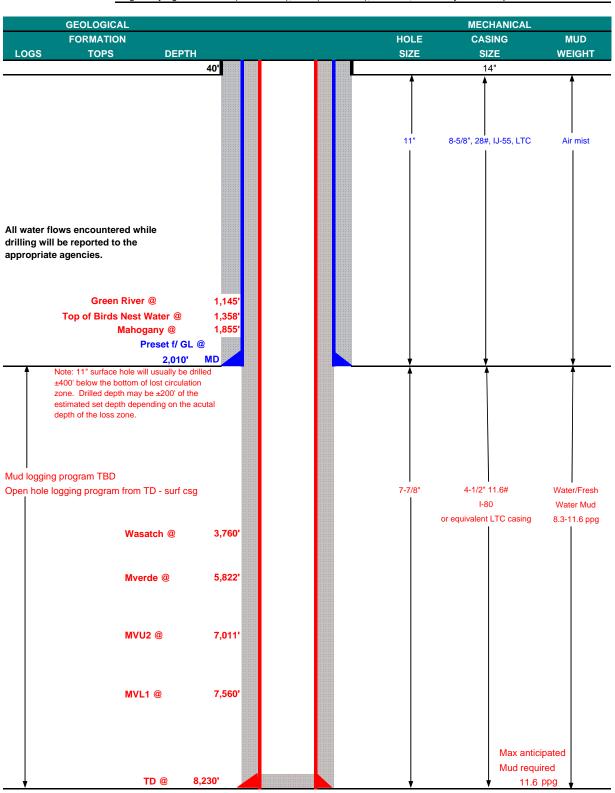
<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

	STATE OF UTAH  DEPARTMENT OF NATURAL RESOURCES  DIVISION OF OIL, GAS, AND MININ	NG	FORM 9  5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 37355
SUND	RY NOTICES AND REPORTS O	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	sals to drill new wells, significantly deepen ex ugged wells, or to drill horizontal laterals. Use		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Bonanza 1023-8J3
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	9. API NUMBER: 43047504980000		
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1579 FSL 2247 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWSE Section: 8	IP, RANGE, MERIDIAN: Township: 10.0S Range: 23.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
Kerr-McGee Oil & C change the cement p	CHANGE TO PREVIOUS PLANS  CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF  WILDCAT WELL DETERMINATION  DMPLETED OPERATIONS. Clearly show all perting Gas Onshore LP (Kerr-McGee) reprogram for this well due to a reving will still be cemented it's entirg	espectfully requests to vised drilling procedure.	Accepted by the Utah Division of
Please see the att information remain	PHONE NUMBER 720 929-6156	onal details. All other undersigned with any	Oil, Gas and Mining  ate: February 17, 2010  y:
SIGNATURE N/A		DATE 2/11/2010	



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY	Y NAME KERI	R-McGEE OIL	& GAS ON	SHORE LP		DATE	Febru	ary 11, 2010		
WELL NAM	ME Bon	anza 1023	-8J3			TD	8,230	' MD/TVD		
FIELD	Natural Buttes	}	COUNTY	Uintah	STATE	Utah		FINISHED EL	EVATION	5,331'
SURFACE	LOCATION	NW/4 SE/4	1,579' FSL	2,247' FEL	Sec	8 T 10S	R 23E		BHL	Straight Hole
		Latitude:	39.960589	Longitu	de: -10	9.349306		NAD 83	_	
OBJECTIV	/E ZONE(S)	Wasatch/Me	saverde							
ADDITION	IAL INFO	Regulatory A	Agencies: Bl	M (MINERA	LS), BLM	(SURFACE),	UDOGM,	Tri-County Health D	ept.	





#### KERR-McGEE OIL & GAS ONSHORE LP

#### **DRILLING PROGRAM**

#### **CASING PROGRAM**

									DESIGN FACT	ORS
	SIZE	IN	ΓERVA	Ļ	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"		0-40'							
								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2010	28.00	IJ-55	LTC	1.07	2.00	6.12
								7,780	6,350	201,000
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<sup>\*</sup>Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above.

D.F. = 2.68

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.6 ppg)
(Collapse Assumption: Fully Evacuated Casing, Max MW)

0.22 psi/ft = gradient for partially evac wellbore

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MASP 3,060 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MABHP 4,871 psi

#### **CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500	Premium cmt + 2% CaCl	215	60%	15.80	1.15
Option 1		+ .25 pps flocele				
TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	40		15.80	1.15
		+ 2% CaCl + .25 pps flocele				
TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
SURFACE		NOTE: If well will circulate water to su	ırface, opt	ion 2 will be	e utilized	
Option 2 LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	140	35%	11.00	3.82
		+.25 pps Flocele + 3% salt BWOC				
TAIL	500	Premium cmt + 2% CaCl	150	35%	15.80	1.15
		+ .25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
	5.000	Described the Heady KOLean OF			44.00	
PRODUCTION LEAD	5,320'	Premium Lite II + 3% KCl + 0.25 pps	500	60%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	2,910'	50/50 Poz/G + 10% salt + 2% gel	820	60%	14.30	1.31
		+ 0.1% R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### **FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.

**PRODUCTION** 

Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

#### ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Drop Totco surveys every 2000'.	Maximum allowable ho	ole angle is 5 degrees.
Diop rotoc barreys every 2000.	Maximum anowabic ne	ole aligie is a acgrees.

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utililzed.

DRILLING ENGINEER:		DATE:	
	John Huycke / Emile Goodwin		
DRILLING SUPERINTENDENT:		DATE:	

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

	STATE OF UTAH DEPARTMENT OF NATURAL RESOUR		FORM 9  5.LEASE DESIGNATION AND SERIAL NUMBER:
	DIVISION OF OIL, GAS, AND MI	INING	UTU 37355
SUNDI	RY NOTICES AND REPORTS	S ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	osals to drill new wells, significantly deepe ugged wells, or to drill horizontal laterals. 		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Bonanza 1023-8J3
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	;HORE, L.P.		<b>9. API NUMBER:</b> 43047504980000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	Street, Suite 600, Denver, CO, 80217 377	<b>PHONE NUMBER:</b> 9 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1579 FSL 2247 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	IP, RANGE, MERIDIAN: Township: 10.0S Range: 23.0E Meridian:	: S	STATE: UTAH
11. CHE	ECK APPROPRIATE BOXES TO INDICA	ATE NATURE OF NOTICE, REPORT	, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	■ NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
✓ DRILLING REPORT	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
Report Date: 2/24/2010	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
2/24/2010	WILDCAT WELL DETERMINATION	OTHER	OTHER:
MIRU PROPETRO AI 2010'. RAN 8 5/8 2 PUMP 125 BBLS H2O YIELD, 5 GAL/SK PR W/ 119 BBLS FRESH PSI. TOP OUT 100 PREMIUM LITE CMNT	CMPLETED OPERATIONS. Clearly show all page 18. RIG ON 2/20/2010. DRILLE 28# J-55 SURFACE CASING. TO PUMP 20 BBLS GEL WATER. EMIUM LITE TAIL CMNT. DROWNER. 50 PSI LIFT, NO RETON SX OF 15.8#, 1.15 YLD, 5 G/F, WAIT 2 HRS PUMP 125 SX SECONT. NO CEMENT TO SURFACE REDIMIX. WORT	ED 11" SURFACE HOLE TO TEST LINES TO 2000 PSI PUMP 225 SX, 15.8 # 1.1 DP PLUG ON FLY. DISPLACE TURNS. BUMP PLUG OF AL SK 4% CALC CLASS GOODS	Accepted by the Utah Division of il, Gas and Mining R RECORD 23,2011
NAME (PLEASE PRINT) Laura Gianakos	<b>PHONE NUMBE</b> 307 752-1169	R TITLE Regulatory Affairs Supervisor	
SIGNATURE N/A		<b>DATE</b> 2/24/2010	

	STATE OF UTAH		FORM 9						
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 37355						
SUND	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:						
	sals to drill new wells, significantly deepen ıgged wells, or to drill horizontal laterals. L		7.UNIT or CA AGREEMENT NAME:						
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Bonanza 1023-8J3						
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		<b>9. API NUMBER:</b> 43047504980000						
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	treet, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES						
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1579 FSL 2247 FEL			COUNTY: UINTAH						
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWSE Section: 8	(P, RANGE, MERIDIAN: Township: 10.0S Range: 23.0E Meridian: S	S	STATE: UTAH						
11. CHE	CK APPROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REPORT,	OR OTHER DATA						
TYPE OF SUBMISSION		TYPE OF ACTION							
	ACIDIZE	ALTER CASING	CASING REPAIR						
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	CHANGE WELL NAME						
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE						
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION						
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK						
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION						
Date of Spau.	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON						
✓ DRILLING REPORT	U TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL						
Report Date: 5/12/2010	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION						
3/12/2010	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:						
FINISHED DRILLIN 11.6# I-80 PRODUC 900 SX CLASS G ECC SX CLASS G 50/50 BBLS WATER, BUMP GOT 18 BBLS TO SU	DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. FINISHED DRILLING FROM 2010' TO 8298' ON MAY 10, 2010. RAN 4 ½" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBLS SPACER, LEAD CEMENT W/ Accepted by the 200 SX CLASS G ECONOCEM @ 12.5 PPG, 1.98 YD. TAILED CEMENT W/ 550Utah Division of SX CLASS G 50/50 POZ MIX @ 14.3 PPG, 1.25 YD. DISPLACED W/ 127. Dil, Gas and Mining BLS WATER, BUMPED PLUG, W/ 500 PSI OVER FINAL CIRC PSI OF 2 POR RECORD OT 18 BBLS TO SURFACE. RD CEMENTERS AND CLEANED PITS. RELEASED ENSIGN RIG #139 ON MAY 12, 2010 @ 03:00 HRS.								
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst							
SIGNATURE N/A		DATE 5/12/2010							

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 37355
SUND	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	sals to drill new wells, significantly deepen ogged wells, or to drill horizontal laterals. Us		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Bonanza 1023-8J3
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047504980000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	treet, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1579 FSL 2247 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWSE Section: 8	IP, RANGE, MERIDIAN: Township: 10.0S Range: 23.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	☐ ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
Date of Work completion.	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
✓ DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
Report Date: 7/8/2010			1
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
THE SUBJECT WEL 12:00 P.M. THE CHRO	MPLETED OPERATIONS. Clearly show all pert L WAS PLACED ON PRODUCTION DNOLOGICAL WELL HISTORY V THE WELL COMPLETION REP	ON ON JULY 8, 2010 AT VILL BE SUBMITTED WITH ORT OI FOR	
NAME (PLEASE PRINT) Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	Regulatory Analyst	
SIGNATURE N/A		<b>DATE</b> 7/9/2010	



## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010

Lease Serial No.

WELL COMPL	FTION	OR RECOMPL	FTION	REPORT	ANDLOG

		· · · ·									U	JTU37355		
1a. Type or		Oil Well		_		Other		~ ·		0.7	6. If	Indian, Allo	ottee or	Tribe Name
b. Type o	f Completion	o 🛮 N	lew Well er	☐ Work C	ver 🔲	Deepen	☐ Plu	g Back	□ Dif	f. Resvr.	7. U	nit or CA A JT0000054	greeme 79	ent Name and No.
2. Name of KERR-		L&GAS C	NSHOREE	<b>⊔</b> Rail: andr		ANDY L anadark						ease Name a		
	P.O. BOX DENVER	173779	<del></del>		<u> </u>	3a	Phone N 720-92	o. (includ 9-6100	e area co	de)	9. A	PI Well No.		43-047-50498
4. Location			ion clearly ar	d in accord	ance with F	ederal red	quirements	3)*			10. I	ield and Po	ol, or F	Exploratory
At surfa	ice NWSE	1579FS	L 2247FEL	39.96062	N Lat, 109	.34863 V	V Lon				11. 8	Sec., T., R.,	M., or l	Block and Survey
At top p	orod interval	reported b	elow NW	SE 1579FS	L 2247FE	L 39.960	62 N Lat	, 109.348	363 W L	on		r Area Sec		OS R23E Mer SLB
At total	1	SE 1579	FSL 2247FI	EL 39.9606	2 N Lat, 1	09.3486					U	IINTÁH		UT
14. Date St 02/17/2	oudded 2010			15. Date T.D. Reached 05/10/2010  16. Date Completed □ D & A Ready to Prod. 07/08/2010  17. Elevations (DF, KB, RT, GL)* 5331 GL										
18. Total D	epth:	MD TVD	8298 8297	19.	Plug Bac	k T.D.:	MD TVD		226 225	20. De	oth Bri	dge Plug Se	t: N	MD FVD
21. Type E CBL/GI	lectric & Oth R-BHV-SD/I	ner Mecha DSN/AC1	nical Logs R TR	un (Submit	copy of eac	eh)			W.	as well core as DST run? rectional Su	•	⊠ No i	Yes	(Submit analysis) (Submit analysis) (Submit analysis)
23. Casing at	nd Liner Rec	ord (Repo	ort all strings	set in well)						100110111111111111111111111111111111111	2,0,			(common unamy one)
Hole Size	Size/G	rade	Wt. (#/ft.)	Top (MD)	Botton (MD)	1 ~	Cementer Depth	1	of Sks. & of Cemer			Cement T	i'op*	Amount Pulled
20.000	14.000	STEEL	36.7			40				28				
11.000	<del></del>	625 IJ55	28.0			80				300			$\longrightarrow$	
7.875	4	.500 180	11.6		82	69			14	150				
····	ļ			<del></del>	<del> </del>									
				<del></del>	<del> </del>	<del> </del>							$\dashv$	
24. Tubing	Record			<u> </u>				<u> </u>						
	Depth Set (M	(D) P	acker Depth	(MD) S	ize D	epth Set (	MD) I	acker De	pth (MD	) Size	De	pth Set (MI	)) ]	Packer Depth (MD)
2.375		7583				26 Darfor	ration Reco	and .		<u> </u>	Д			
25. Produci		<del>-                                    </del>	70							Size	Τ,	No. Holes		Perf. Status
	ormation WASA	VTCH	Тор	5770	ottom 5776		Perforated		O 5776	<del> </del>	_		OPEN	
A) B)	MESAVE			6811	8032				O 8032	†			OPEN	
C)	WILOAVE		**********	-	- 5002				<u> </u>	1	-		<u> </u>	<u> </u>
D)			****			·								
	acture, Treat	ment, Cer	nent Squeeze	, Etc.										
	Depth Interva								d Type o	f Material				
			776 PUMP 7								<del></del>			
	68	11 TO 80	032 PUMP 6	,536 BBLS 5	SLICK H20	& 254,322	LBS 30/5	0 SAND.						
28 Producti	ion - Interval	A		· · · · · · · · · · · · · · · · · · ·	<u> </u>									
Date First	Test	Hours	Test	Oil	Gas	Water	Oil G	ravity	Ga	s	Producti	ion Method		
Produced 07/08/2010	Date 07/10/2010	Tested 24	Production	BBL 0.0	MCF 2370.0	BBL 672	.0 Corr.	API	Gr	avity		FLOW	/S FRO	M WELL
Choke	Tbg. Press.	Csg.	24 Hr.	Oil	Gas	Water	Gas:C		We	ell Status				
Size 20/64	Flwg. 1725 SI	Press. 2450.0	Rate	BBL 0	MCF 2370	BBL 672	Ratio			PGW				
28a. Produc	tion - Interva	ıl B			<u></u>	·	<del></del>				-	<del>'</del>		
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil G Corr.		Ga Gr	s avity	Producti	ion Method		
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:C Ratio		We	ell Status			Di	ECENIE-
	SI	L			L							1.	1 11	ECEIVED

(See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #91039 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

28b. Prod	luction - Inter	val C	.,,	<del></del>								<del> </del>
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	7	Gas Gravity	Production Method		
		<u>.  </u>				<u> </u>	0.07		w to			
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio		Well Status			
28c. Prod	luction - Inter	val D										
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	,	Gas Gravity	Production Method		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio		Well Status			
29. Dispo		(Sold, used	for fuel, vent	ed, etc.)	<del></del>		<del>-</del>	<del></del>	<u> </u>			
30, Summ	nary of Porou	s Zones (Iı	nclude Aquife	rs):					31. F	ormation (Log) Ma	rkers	
tests,	all important including dep ecoveries.	zones of potential the state of	oorosity and c tested, cushic	ontents there on used, time	of: Cored is tool open,	ntervals and flowing and	l all drill-ste d shut-in pre	essures				
	Formation		Тор	Bottom		Description	ons, Conten	ts, etc.		Name		Top Meas. Depth
GREEN F BIRD'S NI MAHOGA WASATC MESAVEI	EST NY H		1121 1338 1846 4073 6024	8298	TD							
									ļ			
32. Addit	ional remarks	(include p	olugging proc	edure): ED WITH R	EDIMIX.				<del></del>			
			TION HISTO			VEY ARE A	ATTACHE	<b>D</b> .				
33 Circle	e enclosed atta	chments:			· · · · · · · · · · · · · · · · · · ·							
1. Ele	ectrical/Mech	anical Log	s (1 full set reg g and cement			<ol> <li>Geologie</li> <li>Core An</li> </ol>			3. DST F 7 Other:	Report	4. Direction	nal Survey
34. I here	by certify tha	t the foreg								ole records (see atta	ched instructi	ons):
			Elect	ronic Subm For KERR-	ission #910 MCGEE (	039 Verified OIL&GAS	d by the BL ONSHORE	M Well II C, LP, sen	nformation S t to the Vern	ystem. al		
Name	c(please print	ANDY L	YTLE				Т	itle <u>REG</u>	JLATORY A	NALYST		,, ,, · · · · · · · · · · · · · · · · ·
Signa	ture	(Electro	nic Submiss	on)			E	Date <u>08/06</u>	/2010			<u> </u>
34. I here  Name  Signa	by certify that explain the control of the control	ANDY L	YTLE  Title 43 U.S.	ched informa ronic Subm For KERR- on)	tion is com ission #910 MCGEE (	plete and co	orrect as detected by the BLONSHORE  To the state of the	M Well In E., LP, sent Citle REGULATION OF THE PROPERTY OF THE	om all availab nformation S t to the Vern JLATORY A 5/2010	ystem.  Al  NALYST		

## **Operation Summary Report**

Well: BONAN	ZA 1023-8J3 YELL	ow	Spud Co	nductor	: 2/17/20	10	Spud Date: 2/2	0/2010	
Project: UTAH	I-UINTAH		Site: BO	NANZA	1023-8J	PAD		Rig Name No: ENSIGN 139/139, PROPETRO/	
Event: DRILLI	NG		Start Dat	e: 2/17/	2010			End Date: 5/12/2010	
Active Datum:	RKB @5,346.01ft	(above Mea	n Sea Leve	UWI: N	W/SE/0/	10/S/23	/E/8/0/0/6/PM/S/1	1,579.00/E/0/2,247.00/0/0	
Date	Time	Duration	Phase	Code	Sub	P/U	MD From	Operation	
	Start-End	(hr)			Code	<u> </u>	(ft)		
2/20/2010	16:30 - 19:00 19:00 - 20:30	2.50 1.50	DRLSUR	01	В	P		DRESS COND, INSTALL AIR BOWL, R/U, BUILD DITCH, R/U PUMPS, AIR COMP, BOSSTER, SET DOG HOUSE, P/U Q507 2ND RUN BIT SERIAL #7018431, MTR SERIAL #8019 SPUD 11" HOLE @ 19:00 HRS 2-20-2010, DRL F/4	
	20:30 22:00	4.50	DDI CUD	00	٨	_		TO 150'	
	20:30 - 22:00	1.50	DRLSUR	06	A	P		L/D 6" P/U DIR MWD TOOLS	
2/21/2010	22:00 - 0:00 0:00 - 15:00	2.00	DRLSUR	02	В	P		DRL W/ MWD F/ 150' TO 410'=260'(130')HR-WOB=22,ROT=55,MTR=105,GP! =650,PP=1350 ON/1150/OFF,UP/DWN/ROT=40/40/40/ DRL F/ 410' TO 1980' = 1570 FT (104) FHR WOB=22,ROT=55,MTR=105,GPM=650,PP=1350	
	15:00 - 23:00	8.00	DRLSUR	08	Α	Z		ON/1150/OFF,UP/DWN/ROT=40/40/40/ WASH TUBE UNSCREWED FROM POWER HEAD TOOH TO BHA TO REPAIR	
	23:00 - 0:00	1.00	DRLSUR	02	В	Р		DRL F/ 1980' - 2010' = 30 FT (30) FHR WOB=22,ROT=55,MTR=105,GPM=650,PP=1350 ON/1150/OFF,UP/DWN/ROT=65/65/65	
2/22/2010	0:00 - 1:00	1.00	DRLSUR	05	С	P		CIRC TO LDDS	
	1:00 - 5:00	4.00	DRLSUR	06	D	P		LDDS ,DIR TOOLS	
	5:00 - 9:00	4.00	DRLSUR	12	С	Р		HELD SAFETY MTNG, RUN 45 JOINTS 8 5/8 28# J-55 CSNG SHOE @ 1970.35 BAFFLE IN THE TOP OF SHOE @1926.05 RELEASE RIG TO TH BONANZA 1023-802S 2-22-2010 @ 09:00 HRS HRS	
	11:00 - 17:00	6.00	DRLSUR	12	E	P		HELD SAFETY MTNG, PRESS TEST TO 2000 PSI, PUMP 125 BBLS H20, PUMP 20 BBLS GEL WATER, PUMP225SX 15.8 # 1.15 YLD 5 GAL/SK TAIL CMNT DROP PLUG ON FLY DISP W/ 119 BBLS FRESH WATER 50 PSI LIFT NO RETURNS, BUMP PLUG W / 490 PSI, TOP OUT 100 SX OF 15.8#. 1.15 YLD 5 GAL SK 4% CALC CMNT, WAIT 2 HRS PUMP 125SX SAME CMNT. WAIT 1.5 HRS PUMP 150SX SAME CMNT NO CEMENT TO SURFACE WILL TOP OUT WITH REDIMIX.	
5/7/2010	6:00 - 8:00	2.00	DRLPRO	01	С	P		R.D.R.T & SKID RIG	
	8:00 - 9:30	1.50	DRLPRO	14	Α	Р		NIPPLE UP B.O.P'S & FLARE LINES	
	9:30 - 12:30	3.00	DRLPRO	15	Α	Р		TEST B.O.P'S	
	12:30 - 13:30	1.00	DRLPRO	14	В	Р		SET WEAR BUSHING & PRE SPUD RIG INSP	
	13:30 - 15:30	2.00	DRLPRO	09	Α	P		CUT DRILL LINE	
	15:30 - 19:00	3.50	DRLPRO	06	Α	Р		P/U MOTOR - BIT - DIR TOOLS & T.I.H & TAG CEMENT @ 1876	
	19:00 - 19:30	0.50	DRLPRO	07	В	P	İ	LEVEL DERRICK & INSTALL ROTHEAD	
	19:30 - 21:00	1.50	DRLPRO	02	F	Р	!	DRILL CEMENT & F.E	
5/8/2010	21:00 - 0:00 0:00 - 6:00	3.00 6.00	DRLPRO DRLPRO	02	В	P P		DRILL F/ 2020 TO 2588 - 568' @ 189.3 FPH - RPM 44 MRPM 145 - WOB 15/18 - TQ 2/5 - GPM 500 - DIFF PSI 1525/1125 MUD WT 8.4 PPG - VIS 26 DRILL F/ 2588 TO 3497 - 909' @ 151.5 FPH - RPM 44 MRPM 145 - WOB 15/18 - TQ 8/4 - GPM 500 -	
							1	DIFF PSI 1750/1425 MUD WT 8.4 PPG - VIS 26	
	6:00 - 6:30	0.50	DRLPRO	07	Α	Р	:	SER RIG	
	6:30 - 0:00	17.50	DRLPRO	02	В		•	DRILL F/ 3497 TO 5907 - 2410' @ 137.7 FPH - RPM 44 MRPM 145 - WOB 15/18 - TQ 9/5 - GPM 500 - DIFF PSI 2050/1725 MUD WT 8.4 PPG - VIS 26	

## Operation Summary Report

Well: BONAN	ZA 1023-8J3 YELLO	)W	Spud Co	onductor	: 2/17/20	010	Spud Date: 2/20/2010
Project: UTAH	I-UINTAH		Site: BO	NANZA	1023-8	J PAD	Rig Name No: ENSIGN 139/139, PROPETRO/
Event: DRILLI	NG		Start Dat	te: 2/17/	2010		End Date: 5/12/2010
Active Datum:	RKB @5,346.01ft (	above Mear	n Sea Leve	UWI: N	IW/SE/0	/10/S/23	/E/8/0/0/6/PM/S/1,579.00/E/0/2,247.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ft)
5/9/2010	0:00 - 15:00	15.00	DRLPRO	02	В	Р	DRILL F/ 5907 TO 7210 - 1303' @ 86.8 FPH - RPM 4 MRPM 145 - WOB 15/18 - TQ 9/5 - GPM 500 - DIFF PSI 2750/2300 MUD WT 10.8 PPG - VIS 40
	15:00 - 15:30	0.50	DRLPRO	07	Α	Р	SER RIG
	15:30 - 0:00	8.50	DRLPRO	02	В	P	DRILL F/ 7210 TO 7791 - 581' @ 68.3 FPH - RPM 44 MRPM 128 - WOB 15/18 - TQ 9/5 - GPM 441 - DIFF PSI 2650/2350 MUD WT 11.6 PPG - VIS 41
5/10/2010	0:00 - 8:00	8.00	DRLPRO	02	В	P	DRILL F/ 7791 TO 8298 - 507' @ 63.4 FPH - RPM 44 MRPM 128 - WOB 15/20 - TQ 9/5 - GPM 441 - DIFF PSI 2650/2350 MUD WT 11.9 PPG - VIS 42
	8:00 - 9:30	1.50	DRLPRO	05	Α	Р	CIRC BTM UP
	9:30 - 19:00	9.50	DRLPRO	06	Α	Р	SHORT TRIP TO SHOE & BACK
	19:00 - 19:30	0.50	DRLPRO	03	Е	Р	WASH TO BTM ( NO FILL )
	19:30 - 21:00	1.50	DRLPRO	05	Α	P	CIRC BTM UP TWICE
	21:00 - 0:00	3.00	DRLPRO	06	В	Р	T.O.H F/ LOGS
5/11/2010	0:00 - 3:00	3.00	DRLPRO	06	В	P	T.O.H F/ LOGS
	3:00 - 7:30	4.50	DRLPRO	80	Α	Z	REPAIR VFD ( VERABLE FREQ. DRIVE ) C/O RELAYS
	7:30 - 8:30	1.00	DRLPRO	06	В	Р	RACK BACK DIR TOOLS & L/D MOTOR BIT
	8:30 - 13:00	4.50	DRLPRO	11	D	Р	HELD S/M HALLIBURTON & R/U WIRELINE & RUN TRIPLE COMBO LOGGERS DEPTH @ 5031
	13:00 - 20:00	7.00	DRLPRO	12	С	P	HELD SM & R/U FRANKS CASING CREW & RUN 41/2 PROD STRING & SHOE SET @ 8270 & F/C @ 8228
	20:00 - 21:00	1.00	DRLPRO	05	Α	Р	CIRC BTM UP
	21:00 - 23:30	2.50	DRLPRO	12	E	Р	HELD SAFETY MEETING W/ HALLIBURTON - & TEST LINES 5000 PSI CEMENT W/ 40 BBLS WATER AHEAD & 900 SKS LEAD @ 12.5 PPG YIELD 1.98 & F/ TAIL 550 SKS @ 14.3 YIELD 1.25 & DISPLACED W/ 127.7 BBLS WATER BUMP PLUG W/ 500 PSI OVER FINAL CIRC PSI OF 2100 & GOT BACK 18 BBLS CEMENT TO PIT
	23:30 - 0:00	0.50	DRLPRO	12	Α	Р	LAND CASING & WASH OUT STACK & L/D LANDING JT.
5/12/2010	0:00 - 3:00	3.00	DRLPRO	14	Α	P	N/D B.O.P'S - CLEAN MUD TANKS & RELEASED RIG @ 03:00 ON 5/12/2010

8/5/2010

## Operation Summary Report

Vell: BONANZ	A 1023-8J3 YELL	WC	Spud C	onducto	: 2/17/20	010	Spud Date:	2/20/2010
Project: UTAH-	-UINTAH		Site: BC	NANZA	1023-8J	PAD		Rig Name No: ENSIGN 139/139, PROPETRO/
vent: DRILLIN				te: 2/17/				End Date: 5/12/2010
ctive Datum: I	RKB @5,346.01ft	(above Mean	Sea Leve	UWI: N	IW/SE/0	/10/S/23	/E/8/0/0/6/PM/	S/1,579.00/E/0/2,247.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	3:00 - 3:00	0.00	DRLPRO					CONDUCTOR CASING: Cond. Depth set: 44 Cement sx used:
								SPUD DATE/TIME: 2/20/2010 19:00  SURFACE HOLE: Surface From depth:44 Surface To depth: 2,010 Total SURFACE hours: 19.50 Surface Casing size.8 5/8 # of casing joints ran: 45 Casing set MD:1,970.0 # sx of cement:600 Cement blend (ppg:)15.8 Cement yield (ft3/sk): 1.15 # of bbls to surface: 0 Describe cement issues: TOP OUT W/REDI MIX Describe hole issues:  PRODUCTION: Rig Move/Skid start date/time: 5/7/2010 6:00 Rig Move/Skid finish date/time:5/7/2010 8:00 Total MOVE hours: 2.0 Prod Rig Spud date/time: 5/7/2010 19:30 Rig Release date/time: 5/12/2010 3:00 Total SPUD to RR hours: 103.5 Planned depth MD 8,285 Planned depth TVD 8,285 Actual MD: 8,298 Open Wells \$: \$477,032 AFE \$: \$592,029 Open wells \$/ft:\$57.49
								PRODUCTION HOLE: Prod. From depth: 2,010 Prod. To depth:8,298 Total PROD hours: 58 Log Depth: 5031 Production Casing size: 4 1/2 # of casing joints ran: 197 Casing set MD:8,284.0 # sx of cement:1,450 Cement blend (ppg:)12.5LEAD 14.3# TAIL Cement yield (ft3/sk): 1.98/1.25 Est. TOC (Lead & Tail) or 2 Stage: 5608 Describe cement issues: 12.5# LEAD 5%EXCESS,TAIL14.3# 10%, 50 BBLS CEMENT TO PIT Describe hole issues:  DIRECTIONAL INFO: KOP: VERITCAL Max angle: 2.55 Departure: 11.25 Max dogleg MD: 0.94

8/5/2010

8:40:34AM

			0	perat	ion S	umma	ary Report
Well: BONANZ	ZA 1023-8J3 YELLC	DW .	Spud Co	onductor	: 2/17/20	010	Spud Date: 2/20/2010
Project: UTAH	Project: UTAH-UINTAH			NANZA	1023-8J	PAD	Rig Name No: MILES-GRAY 1/1
Event: COMPL	Event: COMPLETION			te: 6/25/	2010		End Date: 7/7/2010
Active Datum:	RKB @5,346.01ft (	above Mean	Sea Leve	UWI: N	W/SE/0	/10/S/23/	S/E/8/0/0/6/PM/S/1,579.00/E/0/2,247.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ft)
6/25/2010	7:00 - 8:00	1.00	COMP	33	D	Р	OPEN WELL 0#.  ND WH. NU FRAC VAVELS. MIRU B&C QUICK TEST. PSI TEST CSG & BOTH FRAC VALVES T/ 7000#. GOOD TEST. BLEED OFF PSI. RDMO B&C QUICK TEST. SWI.
6/28/2010	8:00 - 13:00	5.00	COMP	37	В	Р	PERF STG 1) PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF F/ 7849'-51', 4 SPF, 8 HOLES. 8019'-21', 4 SPF, 8 HOLES. 8030'-32', 4 SPF, 8 HOLES. 24 TOTAL HOLES. POOH. SWI. DID NOT FRAC ANY STG'S ON THIS WELL TODAY. 2 PUMP TRUCKS WENT DOWN. HAVE T/ RD THE ROAD SIDE OF LOC T/ GET THEM OUT. RESTART IN THE :AM.
6/29/2010	6:15 - 6:30	0.25	COMP	48		Р	HSM. SIME OPS

## **Operation Summary Report**

Vell: BONAN	ZA 1023-8J3 YELL	OW	Spud Co	onductor	: 2/17/20	10	Spud Date: 2/	20/2010
roject: UTAH	I-UINTAH		Site: BO	NANZA	1023-8J	PAD		Rig Name No: MILES-GRAY 1/1
vent: COMP	LETION		Start Da	te: 6/25/	2010			End Date: 7/7/2010
ctive Datum:	RKB @5,346.01ft	(above Mear	Sea Leve	UWI: N	W/SE/0/	10/S/23	/E/8/0/0/6/PM/S	/1,579.00/E/0/2,247.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	Time	Duration		1.	Sub		MD From	Operation  FRAC STG 1)WHP 1322 PSI, BRK 3509 PSI @ 4.7 BPM. ISIP 2366 PSI, FG .73.  PUMP 100 BBLS @ 50 BPM @ 4350 PSI = 100% HOLES OPEN.  ISIP 2213 PSI, FG .71, NPI -153 PSI.  MP 6155 PSI, MR 52.6 BPM, AP 4200 PSI, AR 50.8 BPM,  PMP 924 BBLS SW & 24,121 LBS OF 30/50 SND 85,000 LBS OF 20/40 SLC SND. TOTAL PROP 29, LBS, SWI, 07:15 AM X-OVER FOR WL  PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7799' P/U PERF F/7626'-27', 4 SPF, 4 HOLES. 7652'-56', 4 SPF, 16 HOLES. 7760'-62', 4 SPF, 8 HOLES. 28 TOTAL HOLES. POOH. X-OVER FOR FRAC CREW.  FRAC STG 2) 09:04 AM WHP 2150 PSI, BRK 3181 PSI @ 4.4 BPM. ISIP 2390 PSI, FG .74. PUMP 100 BBLS @ 50 BPM @ 4460 PSI = 100% HOLES OPEN.  ISIP 2402 PSI, FG .75, NPI 12 PSI.  MP 5410 PSI, MR 52.2 BPM, AP 4066 PSI, AR 50.3 BPM,  PMP 1381 BBLS SW & 51,645 LBS OF 30/50 SND 5,000 LBS OF 20/40 SLC SND. TOTAL PROP 56,6 LBS, 09:39 SWI, X-OVER FOR WL.
								PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 & 120 DEG PHASING. RIH SET CBP @ 7578' P/U PERF F 7364'-65', 3 SPF, 3 HOLES. 7400'-01', 3 SPF, 3 HOLES. 7472'-74', 3 SPF, 6 HOLES. 7523'-26', 4 SPF, 12 HOLES. 7546'-48', 3 SPF, 6 HOLES. 30 TOTAL HOLES. POOH, X-OVER FOR FRAC CREW.
								FRAC STG 3) 10:35 AM WHP 2175 PSI, BRK 2957 PSI @ 5.7 BPM. ISIP 2213 PSI, FG .73. PUMP 100 BBLS @ 51.8 BPM @ 5240 PSI = 93% HOLES OPEN. ISIP 1859 PSI, FG .68, NPI -354 PSI. MP 5535 PSI, MR 56.3 BPM, AP 4760 PSI, AR 51.8 BPM, PMP 2493 BBLS SW & 97,670 LBS OF 30/50 SND 5,000 LBS OF 20/40 SLC SND. TOTAL PROP 102,670 LBS, 11:26 X-OVER FOR WL.
								PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7314' P/U PERF F/7011'-13', 4 SPF, 8 HOLES. 7041'-43', 4 SPF, 8 HOLES. 7237'-39', 4 SPF, 8 HOLES. 24 TOTAL HOLES. POOH, X-OVER FOR FRAC CREW.

8/5/2010 8:43:56AM

			O	perat	ion S	umm	ary Repo	τ
Well: BONANZ	ZA 1023-8J3 YELL	OW WC	Spud Co	onductor	: 2/17/20	010	Spud Date: 2	/20/2010
Project: UTAH	-UINTAH		Site: BC	NANZA	1023-8J	PAD		Rig Name No: MILES-GRAY 1/1
Event: COMPL	ETION		Start Da	te: 6/25/	2010			End Date: 7/7/2010
Active Datum:	RKB @5,346.01ft	(above Mear	Sea Leve	UWI: N	IW/SE/0	/10/S/23	/E/8/0/0/6/PM/S	5/1,579.00/E/0/2,247.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
6/30/2010	8:00 - 12:00	4.00	COMP	36	B	P		FRAC STG 4) 13:49 WHP 1070 PSI, BRK 3027 PSI @ 5.5 BPM. ISIP 1853 PSI, FG .69. PUMP 100 BBLS @ 50 BPM @ 3280 PSI = 100% HOLES OPEN. ISIP 1635 PSI, FG .66, NPI -218 PSI. MP 4538 PSI, MR 53.2 BPM, AP 3060 PSI, AR 52.1 BPM, PMP 936 BBLS SW & 30,625 LBS OF 30/50 SND & 5,000 LBS OF 20/40 SLC SND. TOTAL PROP 35,62 LBS, 14:14 X-OVER FOR WL.  PERF STG 5) PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 6947' P/U PERF F/ 6811'-14', 4 SPF, 12 HOLES. 6844'-47', 4 SPF, 12 HOLES. 24 TOTAL HOLES. POOH, X-OVER FOR FRAC CREW.  FRAC STG 5) 15:51 WHP 525 PSI, BRK 4056 PSI @ 5.3 BPM. ISIP 1676 PSI, FG .68. PUMP 100 BBLS @ 52 BPM @ 3600 PSI = 100% HOLES OPEN. ISIP 2042 PSI, FG .73, NPI 366 PSI. MP 4544 PSI, MR 54.2 BPM, AP 3460 PSI, AR 52.7 BPM, PMP 802 BBLS SW & 25,261 LBS OF 30/50 SND & 5,000 LBS OF 20/40 SLC SND. TOTAL PROP 30,26' LBS, 16:11 X-OVER FOR WL  PERF STG 6)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 5876' P/U PERF F/ 5770'-76', 4 SPF, 24 HOLES. POOH. SWIFN. FRAC STG 6) 08:15 WHP 240 PSI, BRK 1987 PSI @ 7.8 BPM. ISIP 1782 PSI, FG .74. PUMP 100 BBLS @ 52 BPM @ 3450 PSI = 100% HOLES OPEN. ISIP 1965 PSI, FG .77, NPI 183 PSI. MP 4780 PSI, MR 51.7 BPM, AP 3080 PSI, AR 50.8 BPM, ISIP 1782 PSI, FG .74. PUMP 100 BBLS @ 52 BPM @ 3450 PSI = 100% HOLES OPEN. ISIP 1985 PSI, FG .77, NPI 183 PSI. MP 4780 PSI, MR 51.7 BPM, AP 3080 PSI, AR 50.8 BPM, PMP 787 BBLS SW & 33,279 LBS OF 30/50 SND & 10,000 LBS OF 20/40 SLC SND. TOTAL PROP 43,279 LBS. PUMPED 11,447# EXTRA WHITE & 5,000# EXTRA OF SLC T/ EMPTY THE SAND MASTER  PU 4 1/2 8K HAL CBP. RIH SET KILL PLUG @ 5720'. POOH. DONE W/ THIS WELL. RDMO CASED HOLE SOLUTIONS & FRAC TECH SERV.  TOTAL SAND PUMPED = 297,601#.
7/6/2010	7:00 - 7:30 7:30 - 10:00	0.50 2.50	COMP COMP	48 30	A	P P		TOTAL LOAD = 7323 BBLS. HSM, RIGGING DWN & RIGGING UP. RIG DWN OFF 1023-802S, MOVE OVER & RIG UP, ND FV, NU BOPS RU FLOOR.

8:43:56AM 8/5/2010

3

## **Operation Summary Report**

	ZA 1023-8J3 YELLO				: 2/17/20			20/2010
Project: UTAH	I-UINTAH		Site: BO	NANZA	1023-8J	PAD		Rig Name No: MILES-GRAY 1/1
Event: COMPL	LETION		Start Da	te: 6/25/2	2010	1		End Date: 7/7/2010
		above Mean		,		/10/S/23	/E/8/0/0/6/PM/S	/1,579.00/E/0/2,247.00/0/0
Date	Time	Duration	Phase	Code	Sub	P/U	MD From	Operation
Daio	Start-End	(hr)	1 11400	0000	Code		(ft)	
7/7/2010	10:00 - 15:00 7:00 - 7:30	5.00	COMP	31 48	ı	P		TALLY & PU 37/8 SEALED BIT, POBS, 1.875 X/N & 180 JTS 23/8 L-80 TBG OFF FLOAT EOT @ 5683 RU DRLG EQUIP, PREP TO D/O PLUGS IN AM, SWI SDFN. HSM, WORKING W/ POWER SWIVEL.
	7:30 - 15:00	7.50	COMP	44	С	Р		BROKE CIRC CONVENTIONAL, TEST BOPS TO 3,000# PSI, RIH.
								C/O 15' SAND TAG 1ST PLUG @ 5720' DRL PLG IN 4\ MIN 300# PSI INCREASE RIH.
								C/O 30' SAND TAG 2ND PLUG @ 5876' DRL PLG IN 4 MIN 400# PSI INCREASE RIH.
								C/O 30' SAND TAG 3RD PLUG @ 6747' DRL PLG IN 4 MIN 600# PSI INCREASE RIH.
								C/O 30' SAND TAG 4TH PLUG @ 7314' DRL PLG IN 4 MIN 300# PSI INCREASE RIH.
								C/O 30' SAND TAG 5TH PLUG @ 7578' DRL PLG IN 6 MIN 500# PSI INCREASE RIH.
								C/O 30' SAND TAG 6TH PLUG @ 7799' DRL PLG IN 4 MIN 400# PSI INCREASE RIH.
								C/O TO PBTD @ 8225', CIRC CLEAN, RD SWIVEL. L/D 18 JTS LAND TBG ON 240 JTS, ND BOPS NU WH, PMP OFF BIT LET WELL SET FOR 30 MIN FOR BIT TO FALL. TURN WELL OVER TO FB CREW. RIG DWN MOVE OVER & RIG UP ON 1023-8J1S. ND FV NU BOPS RU FLOOR. PREP TO PU TBG IN AM.
								KB = 13' 7 1/6 5K HANGER = .83' 240 JTS 23/8 L-80 = 7567.74' POBS & 1.875 X/N = 2.20' EOT @ 7583.77'
								284 JTS HAULED OUT 240 LANDED 44 TO RETURN
7/8/2010	7:00 -			33	Α			TWTR = 7573 BBLS TWR = 2100 BBLS TWLTR = 5473 BBLS 7 AM FLBK REPORT: CP 2625#, TP 1900#, 20/64" CK, 43 BWPH, TRACE SAND, LIGHT GAS
	12:00 -		PROD	50				TTL BBLS RECOVERED: 3040 BBLS LEFT TO RECOVER: 4533 WELL TURNED TO SALES @ 1200 HR ON 7/8/2010 - 2665 MCFD, 1032 BWPD, CP 2650#, FTP 1900#,
7/9/2010	7:00 -			33	Α			CK 20/64" 7 AM FLBK REPORT: CP 2450#, TP 1725#, 20/64" CK, 34 BWPH, TRACE SAND, - GAS
7/10/2010	7:00 -			33	Α			TTL BBLS RECOVERED: 3969 BBLS LEFT TO RECOVER: 3604 7 AM FLBK REPORT: CP 2300#, TP 1600#, 20/64" CK, 28 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 4721

8/5/2010

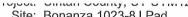
8:43:56AM

		0	perat	tion S	umma	ary Report			
Well: BONANZA 102	23-8J3 YELLC	W Spud C	onducto	r: 2/17/20	010	Spud Date: 2/20/2010			
Project: UTAH-UINT	AH	Site: BC	NANZA	1023-8J	PAD		Rig Name No: MILES-GRAY 1/1		
Event: COMPLETIO	N	Start Da	te: 6/25/	/2010			End Date: 7/7/2010		
Active Datum: RKB (	@5,346.01ft (a	above Mean Sea Leve	UWI: N	1W/SE/0	/10/S/23/	E/8/0/0/6/PM/S/	1,579.00/E/0/2,247.00/0/0		
Date	Time Start-End	Duration Phase (hr)	Code	Sub Code	P/U	MD From (ft)	Operation		
7/11/2010 7:0	0 -		33	Α			7 AM FLBK REPORT: CP 2150#, TP 1475#, 20/64" CK, 23 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 5334 BBLS LEFT TO RECOVER: 2239		
7/12/2010 7:0	0 -		33	Α			7 AM FLBK REPORT: CP 2000#, TP 1525#, 20/64" CK, 20 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 5848 BBLS LEFT TO RECOVER: 1725		

8:43:56AM

8/5/2010

5

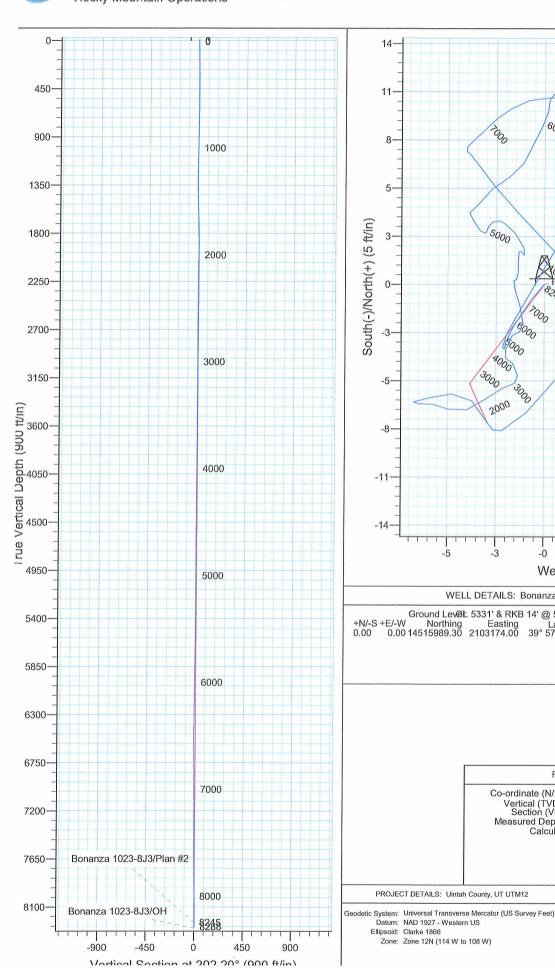


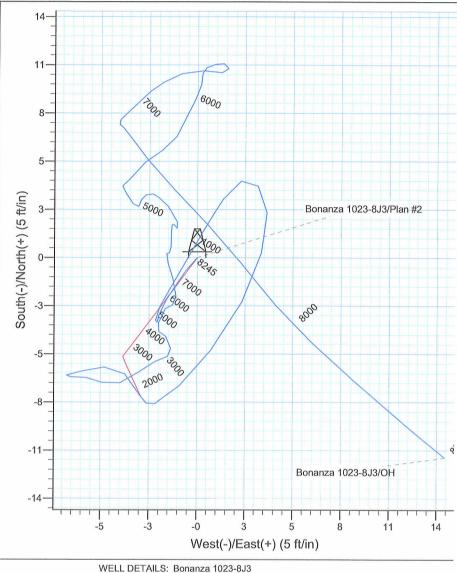
Scientific Drilling Rocky Mountain Operations

Site: Bonanza 1023-8J Pad Well: Bonanza 1023-8J3

Wellbore: OH Design: OH

#### Kerr McGee Oil and Gas Onshore LP





Ground Lev@L 5331' & RKB 14' @ 5345.00ft (Ensign 139)
E/-W Northing Easting Latitude Longitude
0.0014515989.30 2103174.00 39° 57' 38.239 N 109° 20'

#### REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Bonanza 1023-8J3, True North
Vertical (TVD) Reference: GL 5331' & RKB 14' @ 5345.00ft (Ensign 13
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: GL 5331' & RKB 14' @ 5345.00ft (Ensign 13
Calculation Method: Minimum Curvature
Local North: True
Location: Sec 8 T10S R23E

Design: OH (Bonanza 1023-8J3/OH)

Created By: Rex Hall Date: 2010-06-25



# **Kerr McGee Oil and Gas Onshore LP**

Uintah County, UT UTM12 Bonanza 1023-8J Pad Bonanza 1023-8J3 OH

Design: OH

## **Standard Survey Report**

25 June, 2010





Survey Report



Company: Project:

Kerr McGee Oil and Gas Onshore LP

Site:

Uintah County, UT UTM12 Bonanza 1023-8J Pad

Well:

Wellbore:

Bonanza 1023-8J3

Design:

ОН ОН Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

**Survey Calculation Method:** Database:

Well Bonanza 1023-8J3

GL 5331' & RKB 14' @ 5345.00ft (Ensign 139) GL 5331' & RKB 14' @ 5345.00ft (Ensign 139)

Minimum Curvature

EDM 2003.16 Multi-User Db

**Project** 

Uintah County, UT UTM12

Map System:

Universal Transverse Mercator (US Survey Feet)

Geo Datum:

NAD 1927 - Western US

System Datum:

Mean Sea Level

Map Zone:

Zone 12N (114 W to 108 W)

Site

Bonanza 1023-8J Pad, Sec 8 T10S R23E

Site Position:

Northing:

14,515,990.76 ft

Latitude:

39° 57' 38.250 N

From:

Lat/Long

Easting:

2,103,194.16 ft

Longitude:

**Position Uncertainty:** 

0.00 ft

Slot Radius:

109° 20' 54.802 W

**Grid Convergence:** 

1.06°

Well

Bonanza 1023-8J3, 1579' FSL & 2247' FEL 0.00 ft

**Well Position** 

+N/-S +E/-W

Northing: Easting:

14,515,989.30 ft 2,103,174.00 ft

Latitude: Longitude: 39° 57' 38.239 N

**Position Uncertainty** 

0.00 ft 0.00 ft

Wellhead Elevation:

**Ground Level:** 

109° 20' 55.061 W 5,331.00 ft

Wellbore

ОН

**Magnetics** 

**Model Name** 

Sample Date

Declination

(°)

Dip Angle (°)

Field Strength

(nT)

IGRF2005-10

2009/12/31

11.17

65.91

52,501

Design

**Audit Notes:** 

Version:

1.0

OH

Phase:

**ACTUAL** 

Tie On Depth:

10.00

**Vertical Section:** 

Depth From (TVD) (ft)

10.00

+N/-S (ft)

0.00

+E/-W (ft) 0.00

Direction (°) 202.20

2010/06/25

**Survey Program** From

To

(ft) (ft) Survey (Wellbore) **Tool Name** 

Description

158.00 2,070.00 1,958.00 Survey #1 - Surface (OH)

8,298.00 Survey #2 - Production MWD (OH)

MWD SDI MWD SDI MWD - Standard ver 1.0.1 MWD - Standard ver 1.0.1

Survey

1.5										
	Measured Depth (ft)	inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
	10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
	158.00	0.77	221.17	158.00	-0.75	-0.65	0.94	0.52	0.52	0.00
	First SDI Su	rface MWD Surve	ey .							
	248.00	0.58	206.19	247.99	-1.61	-1.25	1.97	0.29	-0.21	-16.64
	338.00	0.70	217.08	337.98	-2.46	-1.79	2.95	0.19	0.13	12.10
	428.00	0.46	190.61	427.98	-3.25	-2.18	3.84	0.39	-0.27	<b>-</b> 29.41
	518.00	0.12	206.30	517.98	-3,69	-2.29	4.29	0.38	-0.38	17.43
	608.00	0.27	344.92	607.98	-3.57	-2.39	4.21	0.41	0.17	154.02
	698.00	0.84	28.63	697.97	-2.79	-2.13	3.39	0.75	0.63	48.57
	788.00	1.18	30.33	787.96	-1.41	-1.34	1.81	0.38	0.38	1.89
	878.00	0.75	28.51	877.95	-0.09	-0.60	0.31	0.48	-0.48	-2.02
	968.00	0.63	31.59	967.94	0.85	-0.06	-0.76	0.14	-0.13	3.42



Survey Report



Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12
Site: Bonanza 1023-8J Pad
Well: Bonanza 1023-8J3

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Database:

Well Bonanza 1023-8J3

GL 5331' & RKB 14' @ 5345.00ft (Ensign 139) GL 5331' & RKB 14' @ 5345.00ft (Ensign 139)

True

Minimum Curvature EDM 2003.16 Multi-User Db

urvey											
	Macaurad			Vertical			Vertical	Doelog	Build	Trees	
	Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Rate	Turn Rate	
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	
	1,058.00	1.00	31.32	1,057.93	1.94	0.61	-2.03	0.41	0.41	-0.30	
	1,148.00	1.14	32.54	1,147.91	3.36	1.50	-3.68	0.16	0.16	1.36	
	1,238.00	0.74	64.91	1,237.90	4.37	2.51	-4.99	0.72	-0.44	35.97	
	1,328.00	0.87	140.02	1,327.90	4.09	3.48	-5.10	1.10	0.14	83.46	
	1,418.00	1,28	176.29	1,417.88	2.56	3.98	-3.88	0.86	0.46	40.30	
	1,508.00	1.70	195.70	1,507.85	0.27	3.68	-1.64	0.30	0.47	21.57	
	1,598.00	2.21	206.76	1,597.80	-2.56	2.54	1.41	0.70	0.57	12.29	
	1,688.00	1.93	219.29	1,687.74	-5.28	0.80	4.59	0.59	-0.31	13.92	
	1,778.00	1.55	224.57	1,777.70	-7.32	-1.01	7.16	0.46	-0.42	5.87	
	1,868.00	0.72	254.07	1,867.68	-8.35	-2.41	8.64	1.10	-0.92	32.78	
	1,958.00	0.72	335.44	1,957.68	-6.33 -7.91	-3.23	8.54	1.13	0.92	90.41	
		face MWD Surve		1,557.00	-7.57	-0.20	0.04	1.10	0.12	30.41	
	2,070.00	0,79	313.54	2,069.66	-6.64	-4.12	7.70	0.28	-0.04	-19.55	
	· · · · · · · · · · · · · · · · · · ·	duction MWD S		2,000.00	-0.0-	-4,12	1.70	0.20	-0.0-	-18.55	
	2.161.00	O.88	266,25	2,160.66	-6.25	-5.28	7.78	0.74	0.10	-51.97	
	2,161.00	0.88	254.04	2,160.66	-6.49	-5.26 -6.63	7.76 8.51	0.74	0.10	-51.97 -13.57	
				•							
	2,342.00	0.18	254.30	2,341.64	-6.72	-7.44	9.03	0.77	-0.77	0.29	
	2,432.00	0.53	97.94	2,431.64	-6.81	-7.16	9.02	0.78	0.39	-173.73	
	2,523.00	0.53	87.13	2,522.64	-6.85	-6.33	8.73	0.11	0.00	-11.88	
	2,614.00	0.70	121.32	2,613.63	-7.12	-5.43	8.64	0.44	0.19	37.57	
	2,704.00	0.79	66.04	2,703.62	<b>-</b> 7.15	-4.39	8.28	0.77	0.10	-61.42	
	2,795.00	0.79	53.65	2,794.62	-6.53	-3.32	7.30	0.19	0.00	-13.62	
	2,885,00	0.62	61.38	2,884.61	-5.93	-2.39	6.39	0.22	-0.19	8.59	
	2,976.00	0.35	80.63	2,975.61	-5.64	-1.68	5.86	0.34	-0.30	21.15	
	3,066.00	0.53	345.79	3,065.60	-5.20	-1.51	5.38	0.73	0.20	-105.38	
	3,157.00	0.44	327.51	3,156.60	-4.49	-1.80	4.84	0.20	-0.10	-20.09	
	3,248.00	0.26	263.27	3,247.60	-4.22	-2.20	4.74	0.44	-0.20	-70.59	
	3,338.00	0.70	19.19	3,337.60	-3.73	-2.22	4.29	0.94	0.49	128.80	
	3,429.00	0.44	37.39	3,428.59	-2.92	-1.82	3.40	0.34	-0.29	20.00	
	3,520.00	0.26	105.50	3,519.59	-2.70	-1.41	3.04	0.46	-0.20	74.85	
	3,610.00	0.70	358.63	3,609.59	<del>-</del> 2.21	-1.23	2.51	0.90	0.49	-118.74	
	3,701.00	0.62	340.61	3,700.58	-1.19	-1,41	1.63	0.24	-0.09	-19.80	
	3,792.00	0.53	344.92	3,791.58	-0.32	-1.68	0.93	0.11	-0.10	4.74	
	3,882.00	0.18	12.25	3,881.58	0.22	-1.76	0.46	0.42	-0.39	30.37	
	3,973.00	0.18	126.33	3,972.58	0.28	-1.61	0.35	0.33	0.00	125.36	
	4,063.00	0.53	357.92	4,062.57	0.61	-1.51	0.01	0.73	0.39	-142.68	
	4,154.00	0.44	4.25	4,153,57	1.38	-1.50	-0.71	0.11	-0.10	6.96	
	4,245.00	0.18	8.12	4,244.57	1.87	-1.46	-1.18	0.29	-0.29	4.25	
	4,335.00	0.18	140.31	4,334.57	1.90	-1.35	-1.25	0.37	0.00	146.88	
	4,426.00	0.18	140.39	4,425.57	1.68	-1.16	-1.12	0.00	0.00	0.09	
	4,516.00	0.62	348.78	4,515.57	2.05	-1.17	-1.46	0.87	0.49	-168.46	
	4,607.00	0.70	313.01	4,606.56	2.91	-1.67	-2.06	0.45	0.09	-39.31	
	4,697.00	0.26	313.19	4,696.56	3.43	-2.22	-2.33	0.49	-0.49	0.20	
	4,788.00	0.26	286.64	4,787.56	3.63	-2.57	-2.39	0.13	0.00	-29.18	
	4,878.00	0.26	241.47	4,877.56	3.59	-2.94	-2.21	0.22	0.00	-50.19	
	4,969.00	0.26	206.93	4,968.56	3.31	-3.22	-1.84	0.17	0.00	-37.96	
	5,059.00	0.26	198.40	5,058.56	2.93	-3.38	-1.44	0.04	0.00	-9.48	
	5,059.00 5,150.00	0.53	323.03	5,056.56 5,149.55	2.93 3.07	-3.38 -3.69	-1.44 -1.45	0.04	0.00	-9.48 136.96	
	5,150.00	0.35	323.03 332.61	5,149.55	3.65	-3.69 -4.08	-1.45 -1.84	0.76	-0.20	10.53	
	5,331.00	0.18	334.72	5,330.55	4.02	-4.26	-2.12	0.19	-0.19	2.34	
	5,422.00	0.09	154.46	5,421.55	4.09	<b>-4.29</b>	-2.16	0.30	-0.10	197.52	
	5,512.00	0.79	40.11	5,511.55	4.50	-3.86	-2.71	0.92	0.78	-127.06	
	5,603.00 5,693.00	0.79 0.79	44.68 64.46	5,602.54 5,692.53	5.43 6.13	-3.02 -2.02	-3.88 -4.92	0.07 0.30	0.00 0.00	5.02 21.98	

## Scientific Drilling Rocky Mountain Operations

### **Scientific Drilling International**

Survey Report



Company: Project:

Uintah County, UT UTM12 Bonanza 1023-8J Pad

Site: Well: Wellbore: Design:

Bonanza 1023-8J3 ОН ОН

Kerr McGee Oil and Gas Onshore LP

Local Co-ordinate Reference: TVD Reference:

MD Reference: North Reference:

**Survey Calculation Method:** 

Database:

Well Bonanza 1023-8J3

GL 5331' & RKB 14' @ 5345.00ft (Ensign 139) GL 5331' & RKB 14' @ 5345.00ft (Ensign 139)

Minimum Curvature

vey										
	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
	5,784.00	0.70	25.87	5,783.52	6.91	-1.21	-5.94	0.55	-0.10	-42.41
	5,874.00	0.79	27.98	5,873.52	7.95	-0.68	<b>-7.10</b>	0.10	0.10	2.34
	5,965.00	0.62	24,47	5,964,51	8.95	-0,18	-8,22	0.19	-0.19	-3.86
	6,055.00	0.62	19.72	6,054.50	9.85	0.18	-9.19	0.06	0.00	-5,28
	6,146.00	0.26	335.34	6,145.50	10.50	0.26	-9.82	0.52	-0.40	-48.77
	6,237.00	0.44	63.75	6,236.50	10.85	0.49	-10.23	0.55	0.20	97.15
	6,327.00	0.26	79.13	6,326.50	11.04	1.00	-10.60	0,22	-0.20	17.09
	6,418.00	0.35	90.74	6,417.50	11.07	1.48	-10.81	0.12	0.10	12.76
	6.508.00	0.35	182.76	6,507,50	10.79	1.74	<b>-</b> 10.65	0.56	0.00	102.24
	6,599.00	0.44	276.10	6,598.49	10.55	1.38	-10.29	0.64	0.10	102.57
	6,690.00	0.88	276.54	6,689,49	10.67	0.34	-10.01	0.48	0.48	0.48
	6,780.00	0.79	246.92	6,779.48	10.51	-0.92	-9.38	0.48	-0.10	-32.91
	6,871.00	0.62	241.62	6,870.47	10.03	-1.93	-8.55	0.20	-0.19	-5.82
	6,961.00	0.62	230.13	6,960.47	9.48	-2.73	-7.75	0.14	0.00	-12.77
	7,052.00	0.79	224.07	7,051.46	8.72	-3.54	-6.73	0.20	0.19	-6.66
	7,142.00	0.26	234.00	7,141.46	8.15	-4.14	-5.98	0.60	-0.59	11.03
	7,233.00	0.26	219.14	7,232.45	7.87	-4.44	<i>-</i> 5.61	0.07	0.00	-16.33
	7,324.00	0.18	136.88	7,323.45	7.60	-4.47	-5.35	0.32	-0.09	-90.40
	7,414.00	0.18	124.84	7,413.45	7.42	-4.26	-5.26	0.04	0.00	-13.38
	7,505.00	0.88	145.76	7,504.45	6.76	-3.75	-4.84	0.79	0.77	22.99
	7,595.00	1.06	139.43	7,594.44	5.56	-2.82	-4.08	0.23	0.20	-7.03
	7,686.00	1.85	137.41	7,685.41	3.84	-1.28	-3.07	0.87	0.87	-2.22
	7,777.00	1.58	135.12	7,776.37	1.87	0.60	-1.96	0.31	-0.30	-2.52
	7,867.00	2.02	141.54	7,866.32	-0.26	2.47	-0.69	0.54	0.49	7.13
	7,958.00	2.02	139.34	7,957.26	-2.73	4.51	0.82	0.09	0.00	-2.42
	8,048.00	1.85	131.52	8,047.21	-4.89	6.63	2.03	0.35	-0.19	-8.69
	8,139.00	2.20	132.75	8,138.16	-7.05	9.01	3.13	0.39	0.38	1.35
	8,230.00	2.55	129.06	8,229.08	-9.52	11.87	4.33	0.42	0.38	-4.05
		luction MWD Su	•							
	8,298.00	2.55	129.06	8,297.01	-11.42	14.22	5.20	0.00	0.00	0.00

Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
B 1023-8J3 PBHL - actual wellpath mic	•	0.00 iter by 22.02	8,245.00 ft at 8230.00	0.00 Oft MD (8229.0	0.00 8 TVD, -9.52	14,515,989.30 N, 11.87 E)	2,103,174.00	39° 57' 38.239 N	109° 20' 55.061 W

Checked By:	Approved By:	Date:	
,		· · · · · · · · · · · · · · · · · · ·	



# **Kerr McGee Oil and Gas Onshore LP**

Uintah County, UT UTM12 Bonanza 1023-8J Pad Bonanza 1023-8J3 OH

Design: OH

**Survey Report - Geographic** 

25 June, 2010





Survey Report - Geographic



Company:

Project: Site:

Uintah County, UT UTM12 Bonanza 1023-8J Pad Bonanza 1023-8J3

Well: Wellbore: Design:

OH

Kerr McGee Oil and Gas Onshore LP

Local Co-ordinate Reference:

Well Bonanza 1023-8J3

**TVD Reference:** 

GL 5331' & RKB 14' @ 5345.00ft (Ensign 139) GL 5331' & RKB 14' @ 5345.00ft (Ensign 139)

MD Reference: North Reference:

Minimum Curvature

**Survey Calculation Method:** Database:

EDM 2003.16 Multi-User Db

**Project** 

Uintah County, UT UTM12

Map System:

Universal Transverse Mercator (US Survey Feet)

System Datum:

Mean Sea Level

Geo Datum:

Site

Well

NAD 1927 - Western US

Map Zone:

Zone 12N (114 W to 108 W)

Bonanza 1023-8J Pad, Sec 8 T10S R23E

Site Position:

From:

Lat/Long

Northing: Easting:

14,515,990.76 ft

Latitude:

39° 57' 38.250 N

2,103,194.16 ft

Longitude:

109° 20' 54.802 W

**Position Uncertainty:** 

0.00 ft

Slot Radius:

Easting:

Grid Convergence:

1.06

Bonanza 1023-8J3, 1579' FSL & 2247' FEL

**Well Position** 

+N/-S +E/-W 0.00 ft

Northing:

14,515,989.30 ft

Latitude:

39° 57' 38,239 N

**Position Uncertainty** 

0.00 ft 0.00 ft

Wellhead Elevation:

2,103,174.00 ft

Longitude: **Ground Level:**  109° 20' 55.061 W 5,331.00 ft

Wellbore

ОН

Magnetics

**Model Name** 

Sample Date

Declination (°)

**Dip Angle** (°)

Field Strength

(nT)

IGRF2005-10

2009/12/31

11,17

65.91

52,501

Design

ОН

**Audit Notes:** 

Version:

1.0

Phase:

ACTUAL

Tie On Depth:

10.00

**Vertical Section:** 

Depth From (TVD) (ft)

10.00

+N/-S (ft) 0.00

+E/-W (ft) 0.00

Direction (°)

202.20

**Survey Program** 

2010/06/25

From

To

Survey (Wellbore)

Date

**Tool Name** 

Description

158.00 2,070.00

1,958.00 Survey #1 - Surface (OH) 8,298.00 Survey #2 - Production MWD (OH) MWD SDI MWD SDI

MWD - Standard ver 1.0.1 MWD - Standard ver 1.0.1



Survey Report - Geographic



Company:

Kerr McGee Oil and Gas Onshore LP

Project: Site: Uintah County, UT UTM12 Bonanza 1023-8J Pad

Well:

Bonanza 1023-8J3

Wellbore: Design: OH OH Local Co-ordinate Reference:

TVD Reference:

North Reference: Survey Calculation Method:

Database:

Well Bonanza 1023-8J3

GL 5331' & RKB 14' @ 5345.00ft (Ensign 139) GL 5331' & RKB 14' @ 5345.00ft (Ensign 139)

True

Minimum Curvature

10.00 0.00 0.00 10.00 10.00 0.00 10.00 0.00 14,515,989,30 2,103,174,00 39° 57° 38.239 N 109° 20′ First 5DI Surface MWD Survey 248.00 0.58 206.19 247.99 1.61 1.25 14,515,986,54 2,103,173.38 39° 57° 38.232 N 109° 20′ 428.00 0.58 206.19 247.99 1.61 1.25 14,515,986,66 2,103,172.76 39° 57° 38.232 N 109° 20′ 428.00 0.46 106.61 427.98 3.269 2.29 14.515,986,80 2.103,172.78 39° 57° 38.235 N 109° 20′ 428.00 0.46 106.61 427.98 3.269 2.29 14.515,986,80 2.103,171.88 39° 57° 38.215 N 109° 20′ 608.00 0.12 206.30 517.98 3.69 2.29 14.515,986,80 2.103,171.88 39° 57° 38.215 N 109° 20′ 608.00 0.27 346.92 607.98 3.57 2.92 2.13 14,515,986,80 2.103,171.88 39° 57′ 38.204 N 109° 20′ 608.00 0.24 28.63 697.97 2.279 2.13 14,515,986,80 2.103,171.68 39° 57′ 38.204 N 109° 20′ 788.00 1.18 30.33 787.96 1.41 1.34 14,515,986,80 2.103,171.68 39° 57′ 38.225 N 109° 20′ 788.00 1.18 30.33 787.96 1.44 1.34 14,515,986,80 2.103,171.68 39° 57′ 38.225 N 109° 20′ 788.00 1.03 3.15 9 967.94 0.86 0.06 14,515,980,14 2.103,173.39 39° 57′ 38.226 N 109° 20′ 988.00 0.63 31.59 967.94 0.85 0.06 14,515,980,14 2.103,173.39 39° 57′ 38.226 N 109° 20′ 1.088.00 1.00 31.02 1.057.93 1.94 0.61 14,515,982.99 2.103,175.44 39° 57′ 38.226 N 109° 20′ 1.288.00 0.74 46.91 1.237.90 4.97 4.97 4.45,515,981.29 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20	Survey									
(ft)										
First 5DI Surface MWD Survey	_								Latitude	Longitude
Pirst SD Surface MVD Survey   248.00	10.00	0.00	0.00	10.00	0.00	0.00	14,515,989.30	2,103,174.00	39° 57′ 38.239 N	109° 20' 55.061 W
248.00 0.58 205.19 247.99 -1.61 -1.25 14.515.987.60 2.103.172.78 39° 57° 38.221 N 109° 20° 428.00 0.70 0.46 190.61 427.98 -3.25 -2.18 14.515.986.00 2.103.172.18 39° 57° 38.221 N 109° 20° 698.00 0.27 344.92 607.98 -3.57 -2.39 14.515.986.60 2.103.171.88 39° 57° 38.207 N 109° 20° 698.00 0.24 28.65 697.97 -2.79 -2.13 14.515.986.60 2.103.171.88 39° 57° 38.204 N 109° 20° 788.00 1.18 30.33 787.98 -1.41 1.24 14.515.986.86 2.103.171.88 39° 57° 38.208 N 109° 20° 788.00 1.18 30.33 787.98 -1.41 1.24 14.515.987.86 2.103.171.88 39° 57° 38.208 N 109° 20° 868.00 0.83 31.59 967.94 0.85 0.06 14.515.987.86 2.103.173.43 39° 57° 38.228 N 109° 20° 1.68.00 1.00 31.32 1.607.83 1.94 0.61 14.515.987.86 2.103.173.43 39° 57° 38.228 N 109° 20° 1.248.00 1.00 31.32 1.607.83 1.94 0.61 14.515.991.25 2.103.173.44 39° 57° 38.228 N 109° 20° 1.248.00 1.00 31.32 1.607.83 1.94 0.61 14.515.991.25 2.103.173.43 39° 57° 38.228 N 109° 20° 1.248.00 0.87 14.00 2.127.90 4.99 3.48 14.515.993.71 2.103.173.43 39° 57° 38.228 N 109° 20° 1.248.00 0.87 14.60.02 1.247.00 1.257.00 4.99 3.48 14.515.993.73 2.103.173.43 39° 57° 38.228 N 109° 20° 1.248.00 0.87 14.50.20 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.7	158.00	0.77	221.17	158.00	-0.75	-0.65	14,515,988.54	2,103,173.36	39° 57′ 38,232 N	109° 20' 55.069 W
238.00 0.70 217.08 337.88 -2.46 -1.79 14.515.986.80 2.103.172.26 39° 57° 38.215 N 100° 20′ 2103.172.8 39° 57° 38.215 N 100° 20′ 318.00 0.12 206.30 517.88 -3.89 -2.29 14.515.986.58 2.103.171.88 39° 57° 38.203 N 100° 20′ 698.00 0.27 344.92 607.98 -3.57 -2.39 14.515.986.58 2.103.171.88 39° 57° 38.204 N 100° 20′ 789.00 0.75 28.51 877.96 -1.41 -1.34 14.515.987.86 2.103.171.82 39° 57′ 38.224 N 100° 20′ 698.00 0.63 30.33 787.96 -1.41 -1.34 14.515.986.78 2.103.171.82 39° 57′ 38.225 N 100° 20′ 698.00 0.63 31.99 967.94 0.85 -0.06 14.515.990.18 2.103.172.88 39° 57′ 38.225 N 100° 20′ 698.00 0.63 31.99 967.94 0.85 -0.06 14.515.990.18 2.103.173.33 39° 57′ 38.248 N 100° 20′ 11.68 0.0 1.00 31.22 1.057.93 1.94 0.61 14.515.990.26 2.103.174.93 39° 57′ 38.228 N 100° 20′ 11.288.00 0.74 64.91 1.237.00 4.37 2.51 14.515.990.26 2.103.174.03 39° 57′ 38.228 N 100° 20′ 11.288.00 0.74 64.91 1.237.00 4.37 2.51 14.515.990.26 2.103.174.03 39° 57′ 38.228 N 100° 20′ 11.288.00 0.74 64.91 1.237.00 4.37 2.51 14.515.990.26 2.103.174.03 39° 57′ 38.228 N 100° 20′ 11.288.00 0.74 64.91 1.278.00 1.267.60 1.507.65 0.27 3.88 14.515.990.38 2.103.177.00 39° 57′ 38.228 N 100° 20′ 1.508.00 1.70 195.70 1.507.65 0.27 3.88 14.515.990.38 2.103.177.00 39° 57′ 38.228 N 100° 20′ 1.598.00 1.20 1.506.76 1.507.60 0.27 3.88 14.515.990.39 2.103.177.00 39° 57′ 38.226 N 100° 20′ 1.598.00 2.21 2.06.76 1.507.60 -0.72 2.54.07 1.667.86 -3.55 -2.41 14.515.990.39 2.103.177.00 39° 57′ 38.241 N 100° 20′ 1.588.00 1.93 219.29 1.887.74 -2.28 0.80 14.515.990.39 2.103.177.00 39° 57′ 38.241 N 100° 20′ 1.588.00 1.50 2.24.57 1.777.70 -7.32 1.01 14.515.990.39 2.103.177.00 39° 57′ 38.147 N 100° 20′ 1.588.00 0.72 2.54.67 1.777.00 -7.32 1.01 14.515.990.39 2.103.177.00 39° 57′ 38.147 N 100° 20′ 1.588.00 0.72 2.54.67 1.777.00 -7.32 1.01 14.515.990.39 2.103.177.00 39° 57′ 38.147 N 100° 20′ 1.588.00 0.75 3.451.40 0.75 3.451.40 0.75 3.451.40 0.75 3.451.40 0.75 3.451.40 0.75 3.451.40 0.75 3.451.40 0.75 3.451.40 0.75 3.451.40 0.75 3.451.40 0.75 3.451.40 0.75 3.451.40 0.75 3.451.40 0.75 3.451.40 0.75	First SDI	Surface MWI	) Survey							
148.00 0.46 190.61 427.88 -3.25 -2.18 14.515.986.00 2.103.171.88 39° 57° 38.207 N 100° 20′ 10										109° 20′ 55.077 W
518.00										109° 20' 55.084 W
68.00										109° 20' 55.089 W
688.00         0.84         28.63         697.97         -2.79         -2.13         14.515,886.47         2.103,171,92         39° 67' 38.226 N         109° 20'           788.00         0.75         28.51         877.96         -1.41         -1.34         14,515,889.19         2.103,173.41         39° 67' 38.226 N         100° 20'           988.00         0.63         31.59         367.94         0.85         -0.06         14,515,896.19         2.103,173.41         39° 67' 38.228 N         100° 20'           1,088.00         1.00         31.52         1,1057.93         1.94         0.61         14,515,992.62         2,103,173.41         39° 67' 38.288 N         109° 20'           1,288.00         0.74         64.91         1.237.90         4.07         2.51         14,515,996.37         2,103,175.44         39° 67' 38.228 N         109° 20'           1,288.00         0.87         140.02         1,327.90         4.09         3.48         14,515,996.37         2,103,177.64         39° 67' 38.228 N         109° 20'           1,598.00         1.70         195.70         1,607.85         0.27         3.68         14,515,996.37         2,103,177.80         39° 67' 38.224 N         109° 20'           1,698.00         1.92         1,507.80 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>109° 20' 55.090 W 109° 20' 55.091 W</td>										109° 20' 55.090 W 109° 20' 55.091 W
788.00 1.18 30.33 787.96 -1.41 -1.34 14,515,987.86 2.103,172.88 39 87 38,225 N 109° 20′ 98.00 0.63 31.59 967.94 0.85 -0.06 14,515,980.19 2.103,173.93 39° 57′ 38,238 N 109° 20′ 1.08 1.00 31.32 1,057.93 1.94 0.61 14,515,990.14 2,103,173.93 39° 57′ 38,238 N 109° 20′ 1.28 1.00 1.00 31.32 1,057.93 1.94 0.61 14,515,990.15 2,103,173.93 39° 57′ 38,288 N 109° 20′ 1.28 1.00 1.04 31.32 1,057.93 1.94 0.61 14,515,990.25 2,103,174.56 39° 57′ 38,288 N 109° 20′ 1.28 1.00 0.74 64.91 1,237.90 4.37 2.51 14,515,993.45 2,103,176.44 39° 57′ 38,289 N 109° 20′ 1.28 1.00 0.87 140.02 1.287.90 4.09 3.48 14,515,993.45 2,103,176.43 39° 57′ 38,282 N 109° 20′ 1.28 1.00 0.87 140.02 1.28 176.29 1.417.88 2.56 3.98 14,515,993.45 2,103,177.40 39° 57′ 38,282 N 109° 20′ 1.418.00 1.28 176.29 1.417.88 2.56 3.98 14,515,993.45 2,103,177.93 39° 57′ 38,282 N 109° 20′ 1.40 1.00 1.28 176.29 1.417.88 2.56 3.98 14,515,993.45 2,103,177.93 39° 57′ 38,282 N 109° 20′ 1.596.00 2.21 2.06.76 1,597.80 2.56 2.54 14,515,986.78 2,103,177.93 39° 57′ 38,242 N 109° 20′ 1.596.00 2.21 2.06.76 1,597.80 2.56 2.54 14,515,986.78 2,103,176.59 39° 57′ 38,241 N 109° 20′ 1.778.00 1.55 2.24.57 1,777.70 7.32 1.01 14,515,980.30 2,103,174.90 39° 57′ 38,187 N 109° 20′ 1.778.00 1.55 2.24.57 1,777.70 7.32 1.01 14,515,980.30 2,103,174.90 39° 57′ 38,187 N 109° 20′ 1.958.00 2.33 35.44 1,957.68 8 8.35 2.41 14,515,981.30 2,103,174.79 39° 57′ 38,187 N 109° 20′ 1.958.00 2.33 35.44 1,957.68 8 8.35 2.41 14,515,982.58 2,103,170.00 39° 57′ 38,187 N 109° 20′ 1.28 1.00 0.88 264.04 2,250.05 5.00 6.64 4.12 14,515,982.58 2,103,170.00 39° 57′ 38,175 N 109° 20′ 2.24 1.00 0.88 264.04 2,250.05 5.3 67.94 2,431.64 6.81 7.16 14,515,982.59 2,103,170.00 39° 57′ 38,175 N 109° 20′ 2.24 1.00 0.88 264.04 2,250.05 5.3 67.94 2,431.64 6.81 7.16 14,515,982.59 2,103,170.00 39° 57′ 38,175 N 109° 20′ 2.24 1.00 0.88 264.04 2,250.05 5.00 6.00 6.00 6.00 6.00 6.00 6.00										109° 20' 55.088 W
88.00 0.63 31.59 967.94 0.85 -0.09 -0.60 14,515,989.19 2.103,173.41 39° 57° 38.238 N 109° 20′ 1,088.00 1.00 31.32 1,057.93 1.94 0.81 14,515,991.25 2,103,174.58 39° 57° 38.248 N 109° 20′ 1,148.00 1.14 3.2.54 1,147.91 3.36 1.50 1.50 1.45 1.5991.25 2,103,174.58 39° 57° 38.228 N 109° 20′ 1,238.00 0.74 64.91 1,237.90 4.09 3.48 14,515,991.25 2,103,176.43 39° 57° 38.228 N 109° 20′ 1,238.00 0.87 140,02 1,327.90 4.09 3.48 14,515,993.51 2,103,176.43 39° 57° 38.228 N 109° 20′ 1,418.00 1.28 176.29 1,417.88 2.56 3.98 14,515,993.11 2,103,177.93 39° 57° 38.228 N 109° 20′ 1,418.00 1.28 176.29 1,417.88 2.56 3.98 14,515,991.93 2,103,177.93 39° 57° 38.228 N 109° 20′ 1,508.00 1.70 195.70 1,507.85 0.27 3.88 14,515,989.93 1,203,177.93 39° 57° 38.228 N 109° 20′ 1,508.00 1.70 195.70 1,507.85 0.27 3.88 14,515,989.93 1,203,177.93 39° 57° 38.242 N 109° 20′ 1,508.00 1.73 195.70 1,507.85 0.27 3.88 14,515,980.93 2,103,176.93 39° 57° 38.242 N 109° 20′ 1,778.00 1.55 224.57 1,777.70 -7.32 -1.01 14,515,981.95 2,103,176.39 39° 57° 38.147 N 109° 20′ 1,788.00 0.27 2,54.07 1,867.68 -3.35 2.44 14,515,980.91 2,103,177.04 39° 57° 38.167 N 109° 20′ 1,888.00 0.72 254.07 1,867.68 -3.55 2.44 14,515,980.91 2,103,177.02 39° 57° 38.161 N 109° 20′ 1,888.00 0.79 313.54 2,099.66 -6.64 -4.12 14,515,982.58 2,103,170.00 39° 57° 38.174 N 109° 20′ 1,281.00 0.88 266.25 2,160.66 -6.25 5.28 14,515,982.95 2,103,170.00 39° 57° 38.174 N 109° 20′ 2,281.00 0.88 264.04 2,250.65 -6.49 -6.63 14,515,982.95 2,103,168.84 39° 57° 38.178 N 109° 20′ 2,281.00 0.88 264.04 2,250.65 -6.49 -6.63 14,515,982.59 2,103,166.69 39° 57° 38.178 N 109° 20′ 2,281.00 0.88 264.04 2,250.65 -6.49 -6.63 14,515,982.95 2,103,160.89 39° 57° 38.178 N 109° 20′ 2,281.00 0.88 264.04 2,250.65 -6.49 -6.63 14,515,982.85 2,103,169.80 39° 57° 38.178 N 109° 20′ 2,281.00 0.88 264.04 2,250.65 -6.49 -6.63 14,515,982.85 2,103,169.00 39° 57° 38.178 N 109° 20′ 2,281.00 0.88 264.04 2,250.65 -6.49 -6.63 14,515,982.85 2,103,169.80 39° 57° 38.178 N 109° 20′ 2,281.00 0.88 264.00 2,281.25 2,281.00 0.88 264.00 2,281.25 2,281.25										109° 20' 55.078 W
98.00										109° 20' 55.068 W
1,088.00 1.00 31.32 1,057.93 1.94 0.61 14,515,992.69 2,103,174.58 39° 57° 38.258 N 109° 20′ 1,148.00 1.14 32.54 1,147.91 3.36 1.50 14,515,992.69 2,103,175.44 39° 57° 38.252 N 109° 20′ 1,328.00 0.74 64.91 1,237.90 4.97 3.51 14,515,993.71 2,103,176.43 39° 57° 38.228 N 109° 20′ 1,328.00 0.87 140.02 1,327.90 4.09 3.48 14,515,993.71 2,103,177.40 39° 57° 38.280 N 109° 20′ 1,418.00 1.28 176.29 1,417.88 2.56 3.98 14,515,991.34 2,103,177.93 39° 57′ 38.280 N 109° 20′ 1,508.00 1.70 195.70 1,507.85 0.27 3.88 14,515,991.94 2,103,177.68 39° 57′ 38.242 N 109° 20′ 1,598.00 2.21 206.76 1,597.80 2.56 2.54 14,515,986.78 2,103,177.69 39° 57′ 38.242 N 109° 20′ 1,588.00 1.93 21° 2.99 1,687.74 -5.28 0.80 14,515,986.78 2,103,176.59 39° 57′ 38.218 N 109° 20′ 1,778.00 1.55 224.57 1,777.70 -7.32 -1.01 14,515,980.195 2,103,173.12 39° 57′ 38.167 N 109° 20′ 1,868.00 0.72 254.07 1,667.68 -8.35 -2.41 14,515,980.13 2,103,171.74 39° 57′ 38.167 N 109° 20′ 1,958.00 0.83 35.44 1,957.68 -7.91 -3.23 14,515,981.33 2,103,170.02 39° 57′ 38.161 N 109° 20′ 2,070.00 0.79 3135.4 2,089.66 -6.64 -4.12 14,515,982.69 2,103,173.12 39° 57′ 38.161 N 109° 20′ 2,103,170.00 39° 57′ 38.171 N 109° 20′ 2,251.00 0.88 266.25 2,160.66 -6.25 -5.28 14,515,982.69 2,103,173.12 39° 57′ 38.171 N 109° 20′ 2,242.00 0.53 87.13 2,252.64 -6.85 -6.28 14,515,982.69 2,103,167.49 39° 57′ 38.175 N 109° 20′ 2,242.00 0.53 87.13 2,252.64 -6.86 6.33 14,515,982.69 2,103,167.49 39° 57′ 38.175 N 109° 20′ 2,252.00 0.79 68.04 2,703.62 -7.15 4.39 14,515,982.69 2,103,166.99 39° 57′ 38.175 N 109° 20′ 2,252.00 0.79 68.04 2,703.62 -7.15 4.39 14,515,982.69 2,103,167.80 39° 57′ 38.175 N 109° 20′ 2,252.00 0.53 87.13 2,252.64 -6.86 6.33 14,515,982.39 2,103,167.80 39° 57′ 38.175 N 109° 20′ 2,253.00 0.53 87.13 2,252.64 -6.86 6.33 14,515,982.69 2,103,167.80 39° 57′ 38.175 N 109° 20′ 2,253.00 0.53 87.33 2,252.64 -6.86 6.33 14,515,982.69 2,103,167.80 39° 57′ 38.169 N 109° 20′ 2,255.00 0.62 63.27 3,246.60 0.52 3,256.60 0.52 3,256.60 0.52 3,256.60 0.52 3,256.60 0.52 3,256.60 0.52 3,256.60 0.52 3,256.60 0.52 3,25										109° 20' 55.062 W
1,148.00										109° 20' 55.053 W
1,238.00 0.74 64.91 1,237.90 4.37 2.51 14,515,993.75 2,103,176.43 39 57 38.282 N 109 20 1,328.00 0.87 140.02 1,327.90 4.09 3.48 14,515,993.45 2,103,177.40 39 57 38.285 N 109 20 1,418.00 1.28 176.29 1,417.88 2.56 3.98 14,515,993.45 2,103,177.40 39 57 38.285 N 109 20 1,509.80 2.21 206.76 1,597.80 2.25 2.45 14,515,993.64 2,103,177.69 39 57 38.285 N 109 20 1,598.00 2.21 206.76 1,597.80 2.25 2.45 14,515,986.76 2,103,177.69 39 57 38.242 N 109 20 1,598.00 2.21 206.76 1,597.80 -2.56 2.54 14,515,984.03 2,103,176.59 39 57 38.242 N 109 20 1,778.00 1,55 224.57 1,777.70 7.32 -1.01 14,515,984.03 2,103,174.90 39 57 38.187 N 109 20 1,778.00 1,55 224.57 1,777.70 7.32 -1.01 14,515,984.03 2,103,174.90 39 57 38.187 N 109 20 1,888.00 0.72 254.07 1,867.68 -8.35 -2.41 14,515,980.01 2,103,171.74 39 57 38.161 N 109 20 1,888.00 0.72 254.07 1,867.68 -8.35 -2.41 14,515,980.91 2,103,171.74 39 57 38.161 N 109 20 1,888.00 0.79 313.54 2,069.66 -6.64 -4.12 14,515,982.68 2,103,170.00 39 57 38.161 N 109 20 1,200.00 0.79 313.54 2,069.66 -6.64 -4.12 14,515,982.68 2,103,170.00 39 57 38.161 N 109 20 1,200.00 0.79 313.54 2,069.66 -6.64 -4.12 14,515,982.68 2,103,170.00 39 57 38.174 N 109 20 1,200.00 0.79 313.54 2,069.66 -6.64 -4.12 14,515,982.69 2,103,168.84 39 57 38.174 N 109 20 1,200.00 0.79 313.54 2,250.65 -6.49 -6.63 14,515,982.69 2,103,166.89 39 57 38.174 N 109 20 1,200.00 0.79 313.54 2,250.65 -6.49 -6.63 14,515,982.69 2,103,166.89 39 57 38.175 N 109 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.79 20 1,200.00 0.70 20 1,200.00 0.70 20 1,200.00 0.70 20 1,200.00 0.70 20 1,200.00 0.70 20 1,200.00 0.70 20 1,200.00 0.70 20 1,200.00 0.70 20 1,200.00 0.70 20 1,200.00 0.70 20 1,200.00 0.70 20 1,200.00 0.70 20 1,200.00 0.70 20 1,200.00 0.70 2,200.00 0.70 2,200.00 0.70 2,200.00 0.70 2,200.00 0.70 3,200.00 0.70 3,200.00 0									39° 57' 38.272 N	109° 20' 55.042 W
1,418.00 1,28 176.29 1,417.88 2,56 3,98 14,515,981.91 2,103,177.93 39° 57′ 38.242 N 109° 20′ 1,598.00 1,70 195.70 1,597.80 -2.56 2.54 14,515,989.64 2,103,176.59 39° 57′ 38.242 N 109° 20′ 1,598.00 2,21 205.76 1,597.80 -2.56 2.54 14,515,989.64 2,103,176.59 39° 57′ 38.242 N 109° 20′ 1,688.00 1.93 219.29 1,687.74 -5.28 0.80 14,515,989.40 2,103,176.59 39° 57′ 38.241 N 109° 20′ 1,777.80 1.55 224.57 1,777.70 -7.32 -1.01 14,515,981.90 2,103,176.19 39° 57′ 38.167 N 109° 20′ 1,868.00 0.72 254.07 1,867.68 -8.35 -2.41 14,515,981.93 2,103,170.92 39° 57′ 38.167 N 109° 20′ 1,868.00 0.83 335.44 1,957.68 -7.91 3.23 14,515,981.33 2,103,170.92 39° 57′ 38.161 N 109° 20′ 1,958.00 0.79 313.54 2,069.66 -6.64 4.12 14,515,982.56 2,103,170.00 39° 57′ 38.161 N 109° 20′ 1,958.00 0.79 313.54 2,069.66 -6.64 4.12 14,515,982.56 2,103,170.00 39° 57′ 38.174 N 109° 20′ 1,958.00 0.88 264.04 2,250.65 -6.49 6.63 14,515,982.95 2,103,168.84 39° 57′ 38.175 N 109° 20′ 2,251.00 0.88 264.04 2,250.65 -6.49 6.63 14,515,982.95 2,103,168.84 39° 57′ 38.175 N 109° 20′ 2,432.00 0.53 97.94 2,431.64 6.72 -7.44 14,515,982.35 2,103,166.96 39° 57′ 38.177 N 109° 20′ 2,432.00 0.53 97.94 2,431.64 6.81 -7.16 14,515,982.35 2,103,166.96 39° 57′ 38.177 N 109° 20′ 2,251.00 0.70 12.132 2,613.63 -7.12 -5.43 14,515,982.33 2,103,169.74 39° 57′ 38.171 N 109° 20′ 2,530.00 0.79 66.04 2,703.62 -7.15 4.39 14,515,982.33 2,103,169.74 39° 57′ 38.171 N 109° 20′ 2,530.00 0.79 66.04 2,703.62 -7.15 4.39 14,515,982.33 2,103,169.74 39° 57′ 38.171 N 109° 20′ 2,795.00 0.79 66.04 2,703.62 -7.15 4.39 14,515,982.33 2,103,169.74 39° 57′ 38.181 N 109° 20′ 2,885.00 0.62 61.38 2,884.61 -5.93 -2.39 14,515,982.33 2,103,169.74 39° 57′ 38.181 N 109° 20′ 2,885.00 0.62 61.38 2,884.61 -5.93 -2.39 14,515,983.33 2,103,171.22 39° 57′ 38.181 N 109° 20′ 2,885.00 0.62 61.38 2,884.61 -5.93 -2.39 14,515,983.33 2,103,171.22 39° 57′ 38.181 N 109° 20′ 2,885.00 0.62 61.38 2,884.61 -5.93 -2.39 14,515,983.33 2,103,171.22 39° 57′ 38.181 N 109° 20′ 3,885.00 0.64 32.75.51 3,885.60 -5.20 -1.51 14,515,986.04 2,103,172.24 39°		0.74	64.91	1,237.90	4.37	2.51	14,515,993.71	2,103,176.43	39° 57' 38.282 N	109° 20' 55.029 W
1,508.00 1,70 195,70 1,507.85 0,27 3.8.68 14,515,986.64 2,103,177.68 39° 57° 38.242 N 109° 20° 1,586.00 1,93 219.29 1,687.74 -5.28 0.80 14,515,986.73 2,103,177.69 39° 57° 38.244 N 109° 20° 1,778.00 1.55 224.57 1,777.70 -7.32 -1.01 14,515,981.95 2,103,173.12 39° 57° 38.187 N 109° 20° 1,868.00 0,72 254.07 1,867.68 -8.35 -2.41 1,4515,981.95 2,103,173.12 39° 57° 38.187 N 109° 20° 1,958.00 0.83 335.44 1,957.68 -7.91 3.23 14,515,981.33 2,103,170.92 39° 57° 38.167 N 109° 20° 1,958.00 0.83 335.44 1,957.68 -7.91 3.23 14,515,981.33 2,103,170.92 39° 57° 38.167 N 109° 20° 1,958.00 0.79 313.54 2,069.66 -6.64 -4.12 14,515,982.58 2,103,170.00 39° 57′ 38.174 N 109° 20° 1,958.00 0.88 266.25 2,160.66 -6.25 5.28 14,515,982.95 2,103,168.84 39° 57′ 38.177 N 109° 20° 1,958.00 0.88 266.25 2,160.66 -6.25 5.28 14,515,982.95 2,103,168.84 39° 57′ 38.175 N 109° 20° 1,958.00 0.53 97.94 2,431.64 -6.72 7.44 14,515,982.44 2,103,166.89 39° 57′ 38.175 N 109° 20° 1,958.00 0.53 97.94 2,431.64 -6.81 7.716 14,515,982.35 2,103,166.89 39° 57′ 38.171 N 109° 20° 1,958.00 0.53 87.13 2,522.64 -6.85 6.33 14,515,982.03 2,103,167.80 39° 57′ 38.171 N 109° 20° 1,958.00 0.79 66.04 2,703.62 7.716 4.39 14,515,982.03 2,103,167.80 39° 57′ 38.171 N 109° 20° 1,958.00 0.79 66.04 2,703.62 7.716 4.39 14,515,982.03 2,103,169.70 39° 57′ 38.171 N 109° 20° 1,958.00 0.79 66.04 2,703.62 7.716 4.39 14,515,982.03 2,103,169.70 39° 57′ 38.171 N 109° 20° 1,958.00 0.79 66.04 2,703.62 7.716 4.39 14,515,982.03 2,103,169.70 39° 57′ 38.171 N 109° 20° 1,958.00 0.79 66.04 2,703.62 7.716 4.39 14,515,982.03 2,103,169.70 39° 57′ 38.181 N 109° 20° 1,958.00 0.79 66.04 2,703.62 7.716 4.39 14,515,982.03 2,103,169.70 39° 57′ 38.171 N 109° 20° 1,958.00 0.79 66.04 2,703.62 7.716 4.39 14,515,982.03 2,103,169.70 39° 57′ 38.181 N 109° 20° 1,958.00 0.79 66.04 2,703.62 7.716 4.39 14,515,982.03 2,103,169.70 39° 57′ 38.181 N 109° 20° 1,958.00 0.79 66.04 2,703.62 7.716 4.39 14,515,982.07 2,103,172.23 39° 57′ 38.181 N 109° 20° 1,958.00 0.79 66.04 2,703.62 7.716 4.39 14,515,982.00 2,103,172.24 39° 57′ 38.1	1,328.00	0.87	140.02	1,327.90	4.09	3.48	14,515,993.45	2,103,177.40	39° 57' 38.280 N	109° 20' 55.016 W
1,598.00 2.21 206.76 1,597.80 -2.56 2.54 14,515,986.78 2,103,176.59 39° 57° 38.214 N 109° 20° 1,688.00 1.93 219.29 1,687.74 -5.28 0.80 14,515,984.03 2,103,171.73 39° 57° 38.167 N 109° 20° 1,886.00 0.72 254.07 1,867.68 -8.35 -2.41 14,515,980.91 2,103,171.74 39° 57° 38.167 N 109° 20° 1,986.00 0.83 355.44 1,957.68 -7.91 -3.23 14,515,981.33 2,103,171.74 39° 57° 38.167 N 109° 20° 1,986.00 0.83 355.44 1,957.68 -7.91 -3.23 14,515,981.33 2,103,170.00 39° 57′ 38.167 N 109° 20° 1,986.00 0.70 0.79 313.54 2,069.66 -6.64 -4.12 14,515,982.58 2,103,170.00 39° 57′ 38.174 N 109° 20° 20° 20° 20° 20° 20° 20° 20° 20° 20	1,418.00	1.28	176.29	1,417.88	2.56	3.98	14,515,991.93	2,103,177.93	39° 57' 38.265 N	109° 20' 55.010 W
1,688.00 1.93 219.29 1,687.74 -5.28 0.80 14,515,984.03 2,103,174.90 39° 57′ 38.187 N 109° 20′ 1,778.00 1.55 224.57 1,777.0 -7.32 -1.01 14,515,981.95 2,103,173.12 39° 57′ 38.167 N 109° 20′ 1,958.00 0.83 335.44 1,957.68 -7.91 -3.23 14,515,981.33 2,103,170.92 39° 57′ 38.161 N 109° 20′ 1,958.00 0.79 313.54 2,069.66 -6.64 -4.12 14,515,982.58 2,103,170.00 39° 57′ 38.161 N 109° 20′ 1,000 0.79 313.54 2,069.66 -6.64 -4.12 14,515,982.58 2,103,170.00 39° 57′ 38.174 N 109° 20′ 1,000 0.79 313.54 2,069.66 -6.64 -4.12 14,515,982.58 2,103,170.00 39° 57′ 38.174 N 109° 20′ 1,000 0.88 266.25 2,160.66 -6.25 -5.28 14,515,982.95 2,103,168.84 39° 57′ 38.177 N 109° 20′ 1,000 0.88 266.25 2,416.06 -6.25 -5.28 14,515,982.95 2,103,168.84 39° 57′ 38.177 N 109° 20′ 1,000 0.88 264.00 0.18 254.30 2,341.64 -6.72 -7.44 14,515,982.95 2,103,166.69 39° 57′ 38.177 N 109° 20′ 1,000 0.88 264.00 0.79 2,342.00 0.53 87.13 2,522.64 -6.85 -6.33 14,515,982.59 2,103,166.69 39° 57′ 38.172 N 109° 20′ 1,000 0.89 20′	1,508.00	1.70	195.70	1,507.85			14,515,989.64	2,103,177.68	39° 57' 38.242 N	109° 20' 55.013 W
1,778.00	1,598.00	2.21		1,597.80		2,54	14,515,986.78	2,103,176.59		109° 20' 55.028 W
1,868.00 0.72 254.07 1,867.68 -8.35 -2.41 14,515,980.91 2,103,171.74 39° 57' 38.157 N 109° 20' 1,958.00 0.83 335.44 1,957.68 -7.91 -3.23 14,515,981.33 2,103,170.92 39° 57' 38.161 N 109° 20' 1,958.00 0.79 313.54 2,069.66 -6.64 -4.12 14,515,982.58 2,103,170.00 39° 57' 38.174 N 109° 20' 1,958.00 0.88 264.04 2,250.65 -6.49 -6.63 14,515,982.69 2,103,167.49 39° 57' 38.175 N 109° 20' 2,251.00 0.88 264.04 2,250.65 -6.49 -6.63 14,515,982.69 2,103,167.49 39° 57' 38.175 N 109° 20' 2,432.00 0.18 254.30 2,341.64 -6.72 -7.44 14,515,982.69 2,103,166.69 39° 57' 38.175 N 109° 20' 2,523.00 0.53 97.13 2,522.64 -6.85 -6.33 14,515,982.35 2,103,166.96 39° 57' 38.175 N 109° 20' 2,523.00 0.53 87.13 2,522.64 -6.85 -6.33 14,515,982.35 2,103,166.96 39° 57' 38.174 N 109° 20' 2,614.00 0.70 121.32 2,613.63 -7.12 -5.43 14,515,982.08 2,103,168.74 39° 57' 38.168 N 109° 20' 2,704.00 0.79 53.65 2,794.62 -6.53 3.32 14,515,982.08 2,103,168.74 39° 57' 38.168 N 109° 20' 2,795.00 0.79 53.65 2,794.62 -6.53 3.32 14,515,982.71 2,103,170.81 39° 57' 38.178 N 109° 20' 2,885.00 0.62 61.38 2,884.61 5.93 -2.39 14,515,982.31 2,103,171.72 39° 57' 38.181 N 109° 20' 2,885.00 0.62 61.38 2,884.61 5.93 -2.39 14,515,982.71 2,103,170.81 39° 57' 38.181 N 109° 20' 2,885.00 0.62 61.38 2,884.61 5.93 -2.39 14,515,982.71 2,103,172.28 39° 57' 38.181 N 109° 20' 3,157.00 0.44 327.51 3,156.60 4.49 -1.80 14,515,982.77 2,103,172.28 39° 57' 38.181 N 109° 20' 3,157.00 0.44 327.51 3,156.60 4.49 -1.80 14,515,984.77 2,103,172.28 39° 57' 38.188 N 109° 20' 3,157.00 0.44 37.39 3,428.59 -2.92 -1.82 14,515,986.34 2,103,172.23 39° 57' 38.210 N 109° 20' 3,157.00 0.62 340.61 3,700.58 -1.19 -1.41 14,515,986.57 2,103,172.62 39° 57' 38.210 N 109° 20' 3,157.00 0.62 340.61 3,700.58 -1.19 -1.41 14,515,986.57 2,103,172.83 39° 57' 38.210 N 109° 20' 3,157.00 0.62 340.61 3,700.58 -1.19 -1.41 14,515,986.57 2,103,172.83 39° 57' 38.210 N 109° 20' 3,157.00 0.62 340.61 3,700.58 -1.19 -1.41 14,515,986.57 2,103,172.62 39° 57' 38.210 N 109° 20' 3,150.00 0.70 386.63 3,609.59 -2.71 -1.41 14,515,986.59 2,103,172.	1,688.00		219.29	1,687.74			14,515,984.03			109° 20' 55.051 W
1,956.00 0.83 335.44 1,957.68 -7.91 -3.23 14,515,981.33 2,103,170.92 39° 57′ 38.161 N 109° 20′ 1  Last SDI Surface MWD Survey 2,070.00 0.79 313.54 2,069.66 -6.64 -4.12 14,515,982.58 2,103,170.00 39° 57′ 38.174 N 109° 20′ 1  First SDI Production MWD Survey 2,161.00 0.88 266.25 2,160.66 -6.25 -5.28 14,515,982.95 2,103,168.84 39° 57′ 38.177 N 109° 20′ 1  2,251.00 0.88 254.04 2,250.65 -6.49 -6.63 14,515,982.95 2,103,167.49 39° 57′ 38.175 N 109° 20′ 1  2,342.00 0.18 254.30 2,341.64 -6.72 -7.44 14,515,982.44 2,103,166.69 39° 57′ 38.175 N 109° 20′ 1  2,432.00 0.53 97.94 2,431.64 -6.81 -7.16 14,515,982.35 2,103,166.96 39° 57′ 38.172 N 109° 20′ 1  2,523.00 0.53 87.13 2,522.64 -6.85 -6.33 14,515,982.35 2,103,167.80 39° 57′ 38.171 N 109° 20′ 1  2,614.00 0.70 121.32 2,613.63 -7.12 -5.43 14,515,982.08 2,103,167.80 39° 57′ 38.178 N 109° 20′ 1  2,704.00 0.79 66.04 2,703.62 -7.15 -4.39 14,515,982.08 2,103,167.80 39° 57′ 38.169 N 109° 20′ 1  2,795.00 0.79 53.65 2,794.62 -6.53 -3.32 14,515,982.10 2,103,169.74 39° 57′ 38.169 N 109° 20′ 1  2,976.00 0.35 80.63 2,975.61 -5.64 -1.68 14,515,982.35 2,103,170.81 39° 57′ 38.188 N 109° 20′ 1  2,976.00 0.35 80.63 2,975.61 -5.64 -1.68 14,515,984.07 2,103,172.24 39° 57′ 38.188 N 109° 20′ 1  3,066.00 0.53 345.79 3,065.60 -5.20 -1.51 14,515,984.07 2,103,172.28 39° 57′ 38.188 N 109° 20′ 1  3,248.00 0.26 263.27 3,247.60 -4.22 -2.20 14,515,985.03 2,103,171.85 39° 57′ 38.188 N 109° 20′ 1  3,248.00 0.26 263.27 3,247.60 -4.22 -2.20 14,515,985.03 2,103,171.85 39° 57′ 38.22 N 109° 20′ 1  3,249.00 0.44 37.39 3,428.59 -2.92 -1.82 14,515,986.07 2,103,172.28 39° 57′ 38.22 N 109° 20′ 1  3,249.00 0.44 37.39 3,428.59 -2.92 -1.82 14,515,986.07 2,103,172.28 39° 57′ 38.22 N 109° 20′ 1  3,249.00 0.44 37.39 3,428.59 -2.92 -1.82 14,515,986.37 2,103,172.81 39° 57′ 38.22 N 109° 20′ 1  3,240.00 0.62 340.61 3,700.58 -1.19 -1.41 14,515,986.95 2,103,172.81 39° 57′ 38.22 N 109° 20′ 1  3,240.00 0.70 358.63 3,609.59 -2.21 -1.23 14,515,989.55 2,103,172.83 39° 57′ 38.22 N 109° 20′ 1  3,240.00 0.70 358.63 3,609.59 -2.21 -1.23										109° 20' 55.074 W
Last SDI Surface MWD Survey   2,070.00	•									109° 20' 55.092 W
2,070.00	1,958.00	0.83	335.44	1,957.68	-7.91	-3.23	14,515,981.33	2,103,170.92	39° 57' 38.161 N	109° 20' 55.102 W
First SDI Production MWD Survey 2,161.00										
2,161.00         0.88         266.25         2,160.66         -6.25         -5.28         14,515,982.95         2,103,168.84         39° 57' 38.177 N         109° 20' 20' 20' 20' 20' 20' 20' 20' 20' 20'	•			2,069.66	-6.64	-4.12	14,515,982.58	2,103,170.00	39° 57′ 38.174 N	109° 20' 55.114 W
2,251.00										
2,342.00 0.18 254.30 2,341.64 -6.72 -7.44 14,515,982.44 2,103,166.69 39° 57' 38.173 N 109° 20' 2,432.00 0.53 97.94 2,431.64 -6.81 -7.16 14,515,982.35 2,103,166.69 39° 57' 38.172 N 109° 20' 2,523.00 0.53 87.13 2,522.64 -6.85 -6.33 14,515,982.33 2,103,167.80 39° 57' 38.171 N 109° 20' 2,614.00 0.70 121.32 2,613.63 -7.12 -5.43 14,515,982.08 2,103,168.70 39° 57' 38.169 N 109° 20' 2,794.00 0.79 66.04 2,703.62 -7.15 -4.39 14,515,982.06 2,103,169.74 39° 57' 38.169 N 109° 20' 2,795.00 0.79 53.65 2,794.62 -6.53 -3.32 14,515,982.06 2,103,169.74 39° 57' 38.169 N 109° 20' 2,885.00 0.62 61.38 2,884.61 -5.93 -2.39 14,515,983.63 2,103,171.72 39° 57' 38.181 N 109° 20' 3,066.00 0.53 345.79 3,065.60 -5.20 -1.51 14,515,984.07 2,103,172.28 39° 57' 38.188 N 109° 20' 3,157.00 0.44 327.51 3,156.60 -4.49 -1.80 14,515,984.77 2,103,172.28 39° 57' 38.188 N 109° 20' 3,248.00 0.26 263.27 3,247.60 -4.22 -2.20 14,515,985.03 2,103,171.82 39° 57' 38.195 N 109° 20' 3,429.00 0.44 37.39 3,428.59 -2.92 -1.82 14,515,986.37 2,103,172.23 39° 57' 38.202 N 109° 20' 3,429.00 0.44 37.39 3,428.59 -2.92 -1.82 14,515,986.67 2,103,172.23 39° 57' 38.210 N 109° 20' 3,520.00 0.26 105.50 3,519.59 -2.70 -1.41 14,515,986.67 2,103,172.81 39° 57' 38.210 N 109° 20' 3,701.00 0.62 340.61 3,700.58 -1.19 -1.44 14,515,988.05 2,103,172.24 39° 57' 38.212 N 109° 20' 3,701.00 0.62 340.61 3,700.58 -1.19 -1.41 14,515,988.05 2,103,172.81 39° 57' 38.212 N 109° 20' 3,701.00 0.62 340.61 3,700.58 -1.19 -1.41 14,515,988.05 2,103,172.81 39° 57' 38.212 N 109° 20' 3,701.00 0.62 340.61 3,700.58 -1.19 -1.41 14,515,988.05 2,103,172.24 39° 57' 38.241 N 109° 20' 3,701.00 0.62 340.61 3,700.58 -1.19 -1.41 14,515,989.05 2,103,172.81 39° 57' 38.221 N 109° 20' 3,701.00 0.62 340.61 3,700.58 -1.19 -1.41 14,515,989.05 2,103,172.81 39° 57' 38.221 N 109° 20' 3,701.00 0.62 340.61 3,700.58 -1.19 -1.41 14,515,989.05 2,103,172.24 39° 57' 38.241 N 109° 20' 3,701.00 0.63 344.92 3,791.58 0.22 -1.68 14,515,989.89 2,103,172.24 39° 57' 38.241 N 109° 20' 3,701.00 0.62 340.61 3,700.58 -1.19 -1.41 14,515,989.89 2,1										109° 20' 55.129 W
2,432.00										109° 20' 55.146 W
2,523.00							•			109° 20' 55.156 W
2,614.00 0.70 121.32 2,613.63 -7.12 -5.43 14,515,982.08 2,103,168.70 39° 57' 38.169 N 109° 20' 3,704.00 0.79 66.04 2,703.62 -7.15 -4.39 14,515,982.06 2,103,169.74 39° 57' 38.169 N 109° 20' 3,795.00 0.79 53.65 2,794.62 -6.53 -3.32 14,515,982.71 2,103,170.81 39° 57' 38.169 N 109° 20' 3,885.00 0.62 61.38 2,884.61 -5.93 -2.39 14,515,983.33 2,103,171.72 39° 57' 38.181 N 109° 20' 3,066.00 0.35 80.63 2,975.61 -5.64 -1.68 14,515,983.62 2,103,172.42 39° 57' 38.183 N 109° 20' 3,066.00 0.53 345.79 3,065.60 -5.20 -1.51 14,515,984.07 2,103,172.58 39° 57' 38.188 N 109° 20' 3,157.00 0.44 327.51 3,156.60 -4.49 -1.80 14,515,984.07 2,103,172.28 39° 57' 38.195 N 109° 20' 3,248.00 0.26 263.27 3,247.60 -4.22 -2.20 14,515,985.03 2,103,171.88 39° 57' 38.195 N 109° 20' 3,338.00 0.70 19.19 3,337.60 -3.73 -2.22 14,515,985.53 2,103,171.85 39° 57' 38.202 N 109° 20' 3,520.00 0.26 105.50 3,519.59 -2.70 -1.41 14,515,986.34 2,103,172.23 39° 57' 38.210 N 109° 20' 3,610.00 0.70 358.63 3,609.59 -2.21 -1.23 14,515,986.37 2,103,172.81 39° 57' 38.217 N 109° 20' 3,792.00 0.53 344.92 3,791.58 -0.32 -1.68 14,515,988.95 2,103,172.23 39° 57' 38.217 N 109° 20' 3,792.00 0.53 344.92 3,791.58 -0.32 -1.68 14,515,988.95 2,103,172.23 39° 57' 38.227 N 109° 20' 3,793.00 0.18 12.25 3,881.58 0.22 -1.76 14,515,989.95 2,103,172.33 39° 57' 38.241 N 109° 20' 3,973.00 0.18 12.63 3,972.58 0.28 -1.61 14,515,989.89 2,103,172.33 39° 57' 38.241 N 109° 20' 3,973.00 0.18 12.63 3,972.58 0.28 -1.61 14,515,989.89 2,103,172.34 39° 57' 38.241 N 109° 20' 4,063.00 0.53 357.92 4,062.57 0.61 -1.51 14,515,989.88 2,103,172.44 39° 57' 38.245 N 109° 20' 4,154.00 0.44 4.25 4,153.57 1.38 -1.50 14,515,990.65 2,103,172.47 39° 57' 38.258 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.46 14,515,990.65 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.46 14,515,990.65 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.46 14,515,990.65 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.46 14,515,990.65 2,103,172.51 39° 57' 3	•									109° 20' 55.153 W 109° 20' 55.142 W
2,704,00 0.79 66.04 2,703.62 -7.15 -4.39 14,515,982.06 2,103,169.74 39° 57′ 38.169 N 109° 20′ 2,795.00 0.79 53.65 2,794.62 -6.53 -3.32 14,515,982.71 2,103,170.81 39° 57′ 38.175 N 109° 20′ 2,885.00 0.62 61.38 2,884.61 -5.93 -2.39 14,515,983.33 2,103,171.72 39° 57′ 38.181 N 109° 20′ 3,966.00 0.35 80.63 2,975.61 -5.64 -1.68 14,515,983.62 2,103,172.42 39° 57′ 38.183 N 109° 20′ 3,1066.00 0.53 345.79 3,065.60 -5.20 -1.51 14,515,984.07 2,103,172.58 39° 57′ 38.188 N 109° 20′ 3,157.00 0.44 327.51 3,156.60 -4.49 -1.80 14,515,984.77 2,103,172.28 39° 57′ 38.195 N 109° 20′ 3,338.00 0.70 19.19 3,337.60 -4.22 -2.20 14,515,985.03 2,103,171.85 39° 57′ 38.202 N 109° 20′ 3,429.00 0.44 37.39 3,428.59 -2.92 -1.82 14,515,986.34 2,103,172.23 39° 57′ 38.212 N 109° 20′ 3,510.00 0.70 358.63 3,609.59 -2.21 -1.23 14,515,986.57 2,103,172.81 39° 57′ 38.212 N 109° 20′ 3,701.00 -0.62 340.61 3,700.58 -1.19 -1.41 14,515,988.08 2,103,172.33 39° 57′ 38.227 N 109° 20′ 3,882.00 0.18 12.25 3,881.58 0.22 -1.76 14,515,989.49 2,103,172.24 39° 57′ 38.224 N 109° 20′ 3,8973.00 0.18 12.63 3,3972.58 0.28 -1.61 14,515,989.89 2,103,172.24 39° 57′ 38.224 N 109° 20′ 3,8973.00 0.18 12.63 3,3972.58 0.28 -1.61 14,515,989.89 2,103,172.24 39° 57′ 38.224 N 109° 20′ 3,973.00 0.53 357.92 4,062.57 0.61 -1.51 14,515,989.89 2,103,172.48 39° 57′ 38.225 N 109° 20′ 4,154.00 0.44 4.25 4,153.57 1.38 -1.50 14,515,989.89 2,103,172.61 39° 57′ 38.253 N 109° 20′ 4,154.00 0.44 4.25 4,153.57 1.38 -1.50 14,515,989.89 2,103,172.41 39° 57′ 38.258 N 109° 20′ 4,154.00 0.44 4.25 4,153.57 1.38 -1.50 14,515,989.89 2,103,172.51 39° 57′ 38.258 N 109° 20′ 4,154.00 0.44 4.25 4,153.57 1.38 -1.50 14,515,980.65 2,103,172.51 39° 57′ 38.258 N 109° 20′ 4,154.00 0.44 4.25 4,153.57 1.38 -1.50 14,515,980.65 2,103,172.51 39° 57′ 38.258 N 109° 20′ 4,154.00 0.44 4.25 4,153.57 1.38 -1.50 14,515,980.65 2,103,172.51 39° 57′ 38.258 N 109° 20′ 4,154.00 0.44 4.25 4,153.57 1.38 -1.50 14,515,980.65 2,103,172.51 39° 57′ 38.258 N 109° 20′ 4,154.00 0.18 8.12 4,244.57 1.87 1.87 1.46 14,515,980.65 2,103,172.51 39° 57′ 3										109° 20' 55.131 W
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2,885,00										109° 20' 55.103 W
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3,701.00								2,103,172.81	39° 57' 38.217 N	109° 20' 55.077 W
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3,973.00 0.18 126.33 3,972.58 0.28 -1.61 14,515,989.55 2,103,172.38 39° 57' 38.242 N 109° 20' 4,063.00 0.53 357.92 4,062.57 0.61 -1.51 14,515,989.88 2,103,172.48 39° 57' 38.245 N 109° 20' 4,154.00 0.44 4.25 4,153.57 1.38 -1.50 14,515,990.65 2,103,172.47 39° 57' 38.253 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.46 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4	3,792.00	0.53	344.92	3,791.58			14,515,988.95	2,103,172.33	39° 57′ 38.236 N	109° 20' 55.082 W
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4,154.00 0.44 4.25 4,153.57 1.38 -1.50 14,515,990.65 2,103,172.47 39° 57' 38.253 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.46 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.46 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.46 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.46 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.46 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.46 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.46 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.48 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 8.12 4,244.57 1.87 -1.48 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 8.12 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20' 4,245.00 0.18 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 57' 38.258 N 109										109° 20' 55.082 W
4,245.00 0.18 8.12 4,244.57 1.87 -1.46 14,515,991.14 2,103,172.51 39° 57' 38.258 N 109° 20'										109° 20' 55.080 W
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4,335.00 0.18 140.31 4,334.57 1.90 -1.35 14,515,991.17 2,103,172.62 39° 57' 38.258 N 109° 20' 3	•									109° 20' 55.080 W
'										109° 20' 55.078 W
, , , , , , , , , , , , , , , , , , , ,				•						109° 20' 55.076 W
				•						109° 20' 55.076 W 109° 20' 55.082 W
4										109° 20' 55.082 W



Survey Report - Geographic



Company:

Kerr McGee Oil and Gas Onshore LP

Project: Site: Uintah County, UT UTM12 Bonanza 1023-8J Pad

Bonanza 1023-8J3

Well: Wellbore: Design:

OH

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method: Database:

Well Bonanza 1023-8J3

GL 5331' & RKB 14' @ 5345.00ft (Ensign 139) GL 5331' & RKB 14' @ 5345.00ft (Ensign 139)

True

Minimum Curvature

Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Map Northing	Map Easting		
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	Latitude	Longitude
4,788.00	0.26	286.64	4,787.56	3.63	-2.57	14,515,992.88	2,103,171.36	39° 57' 38.275 N	109° 20' 55.094
4,878.00	0.26	241.47	4,877.56	3.59	-2.94	14,515,992.83	2,103,170.99	39° 57' 38.275 N	109° 20' 55,09
4,969.00	0.26	206.93	4,968.56	3.31	-3.22	14,515,992.54	2,103,170.72	39° 57' 38,272 N	109° 20' 55.10
5,059.00	0.26	198.40	5,058.56	2.93	-3.38	14,515,992.16	2,103,170.57	39° 57' 38.268 N	109° 20' 55.10
5,150.00	0.53	323.03	5,149.55	3.07	-3.69	14,515,992.30	2,103,170.25	39° 57' 38.270 N	109° 20' 55.10
5,241.00	0.35	332.61	5,240.55	3.65	-4.08	14,515,992.87	2,103,169.86	39° 57' 38.275 N	109° 20' 55.11
5,331.00	0.18	334.72	5,330.55	4.02	-4.26	14,515,993.24	2,103,169.66	39° 57′ 38,279 N	109° 20' 55.11
5,422.00	0.09	154.46	5,421.55	4.09	-4.29	14,515,993.31	2,103,169.63	39° 57′ 38.280 N	109° 20' 55.11
5,512.00	0.79	40.11	5,511.55	4.50	-3.86	14,515,993.72	2,103,170.06	39° 57' 38.284 N	109° 20' 55.11
5,603.00	0.79	44.68	5,602.54	5.43	-3.02	14,515,994.67	2,103,170.88	39° 57′ 38.293 N	109° 20' 55.10
5,693.00	0.79	64.46	5,692.53	6.13	-2.02	14,515,995.39	2,103,171.87	39° 57' 38.300 N	109° 20' 55.08
5,784.00	0.70	25.87	5,783.52	6.91	-1.21	14,515,996.18	2,103,172.66	39° 57' 38.307 N	109° 20' 55.07
5,874.00	0.79	27.98	5,873.52	7.95	-0.68	14,515,997.23	2,103,173.17	39° 57' 38.318 N	109° 20' 55.07
5,965.00	0.62	24.47	5,964.51	8.95	-0.18	14,515,998.24	2,103,173.65	39° 57' 38.328 N	109° 20' 55.06
6,055.00	0.62	19.72	6,054.50	9.85	0.18	14,515,999.15	2,103,174.00	39° 57' 38.337 N	109° 20' 55.05
6,146.00	0.26	335.34	6,145.50	10.50	0.26	14,515,999.80	2,103,174.07	39° 57′ 38.343 N	109° 20' 55.05
6,237.00	0.44	63.75	6,236.50	10.85	0.49	14,516,000.15	2,103,174.29	39° 57' 38.346 N	109° 20' 55.05
6,327.00	0.26	79.13	6,326.50	11.04	1,00	14,516,000.35	2,103,174.80	39° 57' 38.348 N	109° 20' 55.04
6,418.00	0.35	90.74	6,417.50	11.07	1.48	14,516,000.39	2,103,175.28	39° 57' 38.349 N	109° 20' 55,04
6,508.00	0.35	182.76	6,507.50	10.79	1.74	14,516,000.12	2,103,175.54	39° 57' 38.346 N	109° 20' 55.03
6,599.00	0.44	276.10	6,598.49	10.55	1.38	14,515,999.87	2,103,175.19	39° 57' 38.344 N	109° 20' 55.04
6,690.00	88.0	276,54	6,689.49	10.67	0.34	14,515,999.97	2,103,174.14	39° 57' 38.345 N	109° 20' 55.05
6,780.00	0.79	246.92	6,779.48	10.51	-0.92	14,515,999.78	2,103,172.89	39° 57' 38.343 N	109° 20' 55.07
6,871.00	0.62	241.62	6,870.47	10.03	-1.93	14,515,999.28	2,103,171.89	39° 57′ 38.338 N	109° 20' 55.08
6,961.00	0.62	230.13	6,960.47	9.48	-2.73	14,515,998.73	2,103,171.10	39° 57' 38.333 N	109° 20' 55.09
7,052.00	0.79	224.07	7,051.46	8.72	-3.54	14,515,997.94	2,103,170.30	39° 57' 38.325 N	109° 20' 55.10
7,142.00	0.26	234.00	7,141.46	8.15	-4,14	14,515,997.37	2,103,169.71	39° 57' 38.320 N	109° 20' 55.11
7,233.00	0.26	219.14	7,232.45	7.87	-4.44	14,515,997.08	2,103,169.42	39° 57' 38.317 N	109° 20' 55.11
7,324.00	0.18	136.88	7,323.45	7.60	-4.47	14,515,996.82	2,103,169.39	39° 57′ 38.314 N	109° 20' 55.11
7,414.00	0.18	124.84	7,413.45	7.42	-4.26	14,515,996.64	2,103,169.61	39° 57' 38.313 N	109° 20' 55.11
7,505.00	0.88	145.76	7,504.45	6.76	-3.75	14,515,995.99	2,103,170.13	39° 57′ 38.306 N	109° 20' 55.10
7,595.00	1.06	139.43	7,594.44	5.56	-2.82	14,515,994.80	2,103,171.08	39° 57' 38.294 N	109° 20' 55.09
7,686.00	1.85	137.41	7,685.41	3.84	-1.28	14,515,993.11	2,103,172.65	39° 57' 38.277 N	109° 20' 55.07
7,777.00	1.58	135.12	7,776.37	1.87	0.60	14,515,991.17	2,103,174.57	39° 57' 38.258 N	109° 20' 55.05
7,867.00	2.02	141.54	7,866.32	-0.26	2.47	14,515,989.09	2,103,176.47	39° 57' 38.237 N	109° 20' 55.02
7,958.00	2.02	139.34	7,957.26	-2.73	4.51	14,515,986.65	2,103,178.56	39° 57′ 38.212 N	109° 20' 55.00
8,048.00	1.85	131.52	8,047.21	-4.89	6.63	14,515,984.53	2,103,180.72	39° 57' 38.191 N	109° 20' 54.97
8,139.00	2.20	132.75	8,138.16	-7.05	9.01	14,515,982.41	2,103,183.14	39° 57′ 38.169 N	109° 20' 54.94
8,230.00	2.55	129.06	8,229.08	-9.52	11.87	14,515,980.00	2,103,186.04	39° 57' 38.145 N	109° 20' 54.90
Last SDI	Production M	WD Survey							
8,298.00	2.55	129.06	8,297.01	-11.42	14.22	14,515,978.14	2,103,188.43	39° 57' 38.126 N	109° 20' 54.87



Survey Report - Geographic



Company:

Project: Site:

Uintah County, UT UTM12 Bonanza 1023-8J Pad

Well: Wellbore:

Design:

Bonanza 1023-8J3 ОН ОН

Kerr McGee Oil and Gas Onshore LP

**Local Co-ordinate Reference:** 

TVD Reference: MD Reference: North Reference:

Survey Calculation Method: Database:

Well Bonanza 1023-8J3

GL 5331' & RKB 14' @ 5345.00ft (Ensign 139) GL 5331' & RKB 14' @ 5345.00ft (Ensign 139)

Minimum Curvature

Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
B 1023-8J3 PBHL - actual wellpath mis - Circle (radius 25.0		0.00 ter by 22.02	8,245.00 ft at 8230.00	0.00 oft MD (8229.0	0.00 08 TVD, -9.52	14,515,989.30 N, 11.87 E)	2,103,174.00	39° 57' 38.239 N	109° 20' 55.061 W

Design Anı	notations				
	Measured	Vertical	Local Co	oordinates	
	Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
	158.00	158.00	-0.75	-0.65	First SDI Surface MWD Survey
	1,958.00	1,957.68	<b>-</b> 7.91	-3.23	Last SDI Surface MWD Survey
	2,070.00	2,069.66	-6.64	<b>-4</b> .12	First SDI Production MWD Survey
	8,230.00	8,229.08	-9.52	11.87	Last SDI Production MWD Survey
	8,298.00	8,297.01	-11.42	14.22	Projection To TD

Checked By:	Approved By:	Dato:
Checked by.		Date:

SUNDF  Do not use this form for proposition bottom-hole depth, reenter plu DRILL form for such proposals.  1. TYPE OF WELL Gas Well  2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS  3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S  4. LOCATION OF WELL FOOTAGES AT SURFACE: 1579 FSL 2247 FEL QTR/QTR, SECTION, TOWNSHI	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 37355 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7.UNIT OF CA AGREEMENT NAME: 8. WELL NAME and NUMBER: BONANZA 1023-8J3 9. API NUMBER: 43047504980000 9. FIELD and POOL OF WILDCAT: NATURAL BUTTES COUNTY: UINTAH					
Qtr/Qtr: NWSE Section: 08	STATE: UTAH					
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA						
TYPE OF SUBMISSION	TYPE OF ACTION					
The operator request on the subject we	ACIDIZE	casing repair operations ed procedures for the				
NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II	y:			
SIGNATURE N/A		<b>DATE</b> 2/17/2011				

WORKORDER #: 88118786

Name: <u>BONANZA 1023-8J3S</u> 2/8/11

Location: NWSE Sec. 8, T10S, R23E

Uintah County, UT

**ELEVATIONS:** 5331' GL 5344' KB

**TOTAL DEPTH:** 8298' **PBTD:** 8225'

**SURFACE CASING:** 8 5/8", 28# J-55 ST&C @ 1980'

**PRODUCTION CASING:** 4 1/2", 11.6#, I-80 LT&C @ 8270'

Marker Joint 4175'-4196'

T.O.C.@ ~600

**PERFORATIONS:** Mesaverde 6811' – 8032'

Wasatch 5770' - 5776'

	BURST	COLLAPSE	DRIFT DIA.	CAPACITIES	
	(psi)	(psi)	(in.)	(bbl/ft)	(gal/ft)
2 3/8" 4.7# J-55	7,700	8,100	1.901"	0.00387	0.1624
tbg					
4 ½" 11.6# I-80	7780	6350	3.875"	0.0155	0.6528
(See above)					
2 3/8" by 4 ½"				0.0101	0.4227
Annulus					

#### **GEOLOGICAL TOPS:**

1121' Green River

1338' Bird's Nest

1846' Mahogany

4073' Wasatch

6024' Mesaverde

8298' Bottom of Mesaverde (TD)

#### BONANZA 1023-8J3S - WELLHEAD REPLACEMENT PROCEDURE

#### PREP-WORK PRIOR TO MIRU:

- 1. Dig out down to the 2" surface casing valve or to the valve on the riser off the surface casing.
- 2. Install a tee with 2 valves, with a pressure gauge and sensor on one valve.
- 3. Open casing valve and record pressures.
- 4. Install nipple and steel hose on the other valve, the relief valve,. Do not use hammer unions. No impact equipment or tools to be used for any of this installation. Extend

hose and hard piping to a downwind location at least 100' from the wellhead. Consider installing a manifold so that vent area could be in two locations approx. 90 degrees apart from the wellhead.

- 5. Open the relief valve and blow well down to the atmosphere.
- 6. Make a determination of amount of gas flow, either by installation of a choke nipple, bucket test or other.
- 7. Shut well in. Observe for rate of build-up by utilizing sensor data. Do not build-up for more than 24 hours. Vent gas through the vent line and leave open to the atmosphere.

#### **WORKOVER PROCEDURE:**

- 1. MIRU workover rig.
- 2. Kill well with 10# brine / KCL (dictated by well pressure ).
- 3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.
- 4. Pooh w/ tubing.
- 5. Rig up wireline service. RIH and set CBP @ ~5720'. Dump bail 4 sx cement on top of plug. POOH and RD wireline service.
- 6. Remove BOP and ND WH.
- 7. Depending on conditions at wellsite, continue with either CUT/PATCH Procedure or BACK-OFF Procedure.

#### **CUT/PATCH PROCEDURE:**

- 1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.
- 2. POOH, LD cutters and casing.
- 3. PU 1 joint of 3  $\frac{1}{2}$ " IF drill pipe with 4  $\frac{1}{2}$ " right hand standard grapple overshot. Pull a minimum of 10,000# to keep grapple engaged if cement top is high (<~900'). If cement top is low (>~900'), more weight will be required to put casing in neutral. Torque casing string to +/- 4500 ft-lbs, count number of turns to make-up, and document in the daily report. Release overshot, POOH, and lay down.
- 4. PU & RIH w/  $4\frac{1}{2}$ " 10k external casing patch on  $4\frac{1}{2}$ " I-80 or P-110 casing.
- 5. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 7,000 psi.

- 6. Install C-22 slips. Land casing w/ 80,000# tension.
- 7. Cut-off and dress 4 ½" casing stub.
- 8. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~5670'. Clean out to PBTD (8225').
- 9. POOH, land tbg and pump off POBS.
- 10. NUWH, RDMO. Turn well over to production ops.

#### **BACK-OFF PROCEDURE:**

- 1. PU internal casing cutters and RIH. Cut casing at +/- 6' from surface.
- 2. POOH, LD cutters and casing.
- 3. PU 4 ½" overshot. RIH, latch fish. Pick string weight to neutral.
- 4. MIRU wireline services. RIH and shoot string shot at casing collar @ 46'.
- 5. MIRU casing crew.
- 6. Back-off casing, POOH.
- 7. PU new casing joint w/ entry guide and RIH. Tag casing top. Thread into casing and torque up to +/- 4500 ft-lbs, count number of additional turns to make-up, and document in the daily report.
- 8. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 7,000 psi.
- 9. Install C-22 slips. Land casing w/ 80,000# tension.
- 10. Cut-off and dress 4 ½" casing stub.
- 11. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~5670'. Clean out to PBTD (8225').
- 12. POOH, land tbg and pump off POBS.
- 13. NUWH, RDMO. Turn well over to production ops.

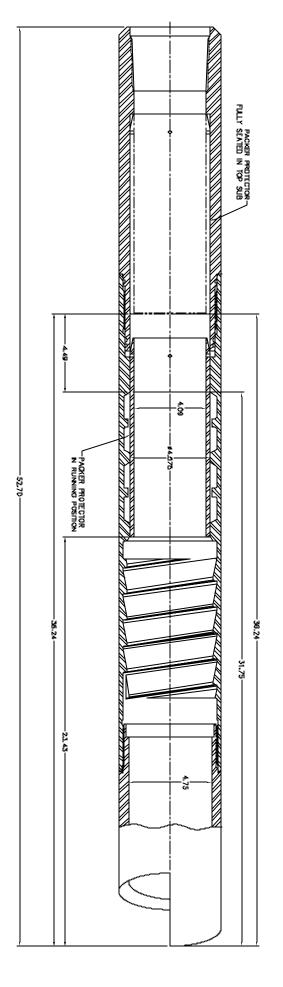


## **Logan High Pressure Casing Patches Assembly Procedure**

All parts should be thoroughly greased before being assembled.

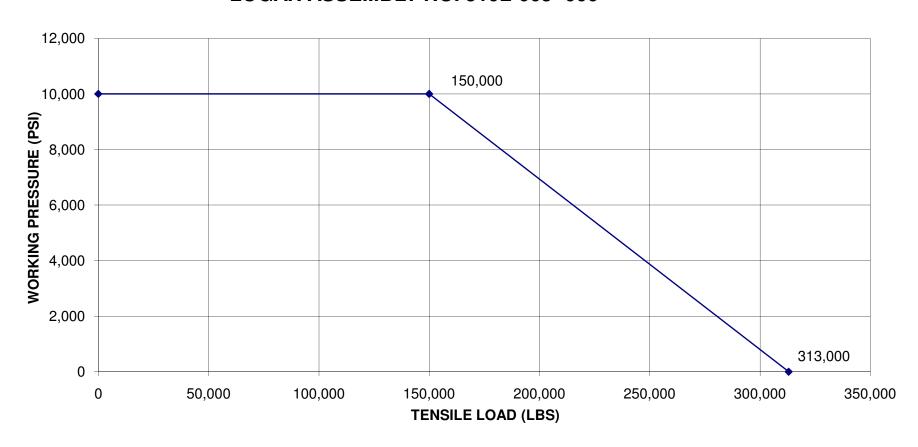
- 1. Install all four Logan Type "L" Packers in the spaces provided in the Casing Patch Bowl. Refer to diagram provided for proper installation.
- 2. Install Packer Protector from the Basket Grapple end of the Bowl. The beveled end of the Packer Protector goes in first. Carefully push the Packer Protector through the four Type "L" Packers.
- 3. Align Shear Pin Holes in Packer Protector so that the holes have just passed into the counter bore at the Top Sub end, refer to diagram. The Packer Protector is provided with four Shear Pin Holes. Use only two holes, 180 degrees apart and install the pins.
- 4. Screw the Basket Grapple in from the lower end of the Bowl, using left-hand rotation. The Tang Slot in the Basket Grapple must land in line with the slot in the Bowl.
- 5. Insert the Basket Grapple Control into the end of the Bowl. Align Tang on the Basket Grapple Control with the Tang Slot of the Bowl and Basket Grapple. This secures the Bowl and the Basket Grapple together.
- 6. Install the Cutlipped Guide into the lower end of the Bowl.
- 7. Install O-Rings on the two five-foot long Extensions. Screw the first Extension into the top end of the Bowl. Screw the second Extension into the top end of the first Extension.
- 8. Install O-Ring on Top Sub. Screw Top Sub into top end of second Extension.

Follow recommended Make-Up Torque as provided in chart.



510L-005-001 4-1/2" LOGAN HP CASING PATCH

# STRENGTH DATA FOR LOGAN 5.88" OD "L" TYPE CSG PATCH 4-1/2 CASING, 10K PSI MAX WP 125K YIELD MAT'L LOGAN ASSEMBLY NO. 510L-005 -000



COLLAPSE PRESSURE: 11,222 PSI @ 0 TENSILE 8,634 PSI @ 220K TENSILE

Tensile Strength @ Yield: Tensile Strength w/ 0 Int. Press.= 472,791lbs. Tensile Strength w/ 10K Int. Press.= 313,748lbs. Sundry Number: 13802 API Well Number: 43047504980000

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 37355
SUND	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	sals to drill new wells, significantly deepen on gged wells, or to drill horizontal laterals. Us		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: BONANZA 1023-8J3
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		<b>9. API NUMBER:</b> 43047504980000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHON treet, Suite 600, Denver, CO, 80217 3779	<b>TE NUMBER:</b> 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1579 FSL 2247 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI	IP, RANGE, MERIDIAN: Township: 10.0S Range: 23.0E Meridian: S	3	STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATI	E NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
The operator has	□ ACIDIZE □ CHANGE TO PREVIOUS PLANS □ CHANGE WELL STATUS □ DEEPEN □ OPERATOR CHANGE □ PRODUCTION START OR RESUME □ REPERFORATE CURRENT FORMATION □ TUBING REPAIR □ WATER SHUTOFF □ WILDCAT WELL DETERMINATION  OMPLETED OPERATIONS. Clearly show all pertoconcluded wellhead/casing repose the attached chronological hoperations.	oairs on the subject well nistory for details of the L COLORDO OF COLORDO OF	CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APPD EXTENSION OTHER: Columes, etc.  ACCEPTED by the Utah Division of I, Gas and Mining RECORD ONLY
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE	
Gina Becker  SIGNATURE	720 929-6086	Regulatory Analyst II  DATE	
N/A		3/27/2011	

Sundry Number: 13802 API Well Number: 43047504980000

					_		KIES RI	EGION ary Report	
Well: BONANZA Project: UTAH-U		3 YELLOW		Spud Con Site: BON	nductor: 2	2/17/2010		Spud Date: 2/20	0/2010 Rig Name No: LEED 698/698, LEED 465/465
Active Datum: D			ean Sea Lev	Start Date			0/S/23/E/8	3/0/0/6/PM/S/1,57	End Date: 3/16/2011 9.00/E/0/2,247.00/0/0
Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
3/9/2011	7:00 7:30	- 7:30 - 7:30	0.50 0.00	MAINT MAINT	48 34		P P		RU RD  MIRU, 230# TBG & CSG, KILL WELL, PUMP 10 BBLS DWN TBG, NDWH, NU BOP'S, POOH TBG STD BACK 87 STDS, 5502.05' LAY DWN 66 JTS 2066.00' ON SILLS, RU CUTTERS, PU GAUGE RING TIH TO 5754, POOH, PU 10K CBP TIH SET 10K PLUG 5725', BAIL 4 SX CEMENT ON PLUG, RD CUTTERS, TIH WITH 87 STDS TBG, BREAK CIRC, PRESSURE TEST CSG TO 1000# 15 MIN LAND TBG, ND BOP'S, NUWH RDMO TO BON 1023-8J1S 10K CBP 5725' TOP PERF 5770' BTM PERF 8032' WTR PUMPED 35 BBLS ON FORMATION

Sundry Number: 13802 API Well Number: 43047504980000

		Bullary	<u>IVAIIDCI</u>		S ROC			43047504980000
				Opera	tion S	umma	ary Report	
Well: BONANZA	1023-8J3 YELLOW		Spud Co	nductor: 2	2/17/2010		Spud Date: 2/2	0/2010
Project: UTAH-L	JINTAH		Site: BON	NANZA 10	)23-8J PA	AD.		Rig Name No: LEED 698/698, LEED 465/465
Event: WELL W	ORK EXPENSE		Start Date	e: 3/9/201	1			End Date: 3/16/2011
Active Datum: D	FE @0.00ft (above Mo	ean Sea Leve				0/S/23/E/	8/0/0/6/PM/S/1,57	79.00/E/0/2,247.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
3/14/2011	7:00 - 17:30	10.50	WO/REP	30	Code	P	(π)	7AM [DAY 2] JSA-R/D RIG, R/U RIG, CUT CSG, WIRELINE, LIFTING, NDWH, NUWH. PRESSURE TESTING.  BONANZA 1023-8J PAD WELL:  RD FROM BONANZA 1023-8J1S. MOVE OVER AND R/U ON BONANZA 1023-8J3S. SP;OT EQUIP. WHP=0#.EOT @ 5502' NDWH, NUBOP, R/U FLOOR & TBG EQUIP. UNLAND TBG. L/D TBG HNGR. POOH STDG BACK 87 STDS 2-3/8" L-80 TBG. L/D XN NIPPLE. R/D FLOOR & TBG EQUIP. NDBOP. R/U SWVL. EST TOC @ 150'. FILL CSG W/ TMAC. P/U WTFRD INTERNAL CSG CUTTER & CUT OFF 4-1/2" CSG 7' BELOW SURFACE. R/D SWVL. POOH & L/D TOOLS AND CSG SUB. P/U WTFRD 4-1/2" O.S. RIH & LATCH ON FISH TOP. MIRU WTFRD CSG CREW & CUTTERS. PUT 5000# BACK TORQUE ON CSG. CSG BACKED OFF. RDMO CUTTERS.
3/15/2011	7:00 - 7:30	0.50	ALL	48		P		CUTTERS.  POOH W/ 4-1/2" CSG LAYING DN 2 JTS. PIN LOOKING UP DOWN HOLE.  P/U NEW JT CSG W/ ENTRY GUIDE & RIH W/ 2 JTS CSG. TAG CSG TOP @ 92" + THREAD INTO CSG & TORQUE UP TO 7000# TOOK 26-1/2" TURNS. P/U 100,000# TENSION ON CSG. FILL 4-1/2" 7 8-5/8" ANNULUS W/ TMAC. MIRU B&C. P.T. 4-1/2" CSG TO 1000# FOR 15 MIN, 3500# FOR 15 MIN & 7000# FOR 30 MIN. INSTALL C-21 SLIPS, LAND CSG W/ 80,000# TENSION. CUT OFF & DRESS 4-1/2" CSG. NUWH. P.T. 4-1/2" X 8-5/8" ANNULUS TO 200#, LOST 50# IN 15 MIN. P.T. TO 500# LOST 100# IN 30 MIN. RDMO B&C. NUBOP. FINISH N/U WELL HEAD TO WTFRD SPECS & P.T. R/U FLOOR.  5:30 PM SWI-SDFN. HSM, REVIEW AIR FOAM UNIT.
3/13/2011								,
	7:30 - 9:30	2.00	ALL	31	ı	Р		PU 3-7/8 MILL & POBS, RIH W/ 174 JTS. L-80 TBG, RU SWAB EQUIPMENT & BROACH TBG, W/ 1.9, RD SWAB EQUIPMENT, PU 6 JTS. TBG F/ TBG SEALS, TAG CMT @ 5670'.
	9:30 - 10:00	0.50	ALL	47	A	Р		RU PWR SWVL, INSTALLED TSF, RU AIR FOAM UNIT.
	10:00 - 10:45	0.75	ALL	47	C	P		HAVING PROBLEMS STARTING AIR FOAM UNIT,
	10:45 - 11:30	0.75	ALL	31	Н	Р		BROKE CIRC IN 45 MINS
	11:30 - 11:50	0.33	ALL	44	Α	Р		D/O CMT F/ 5670' TO 5725' IN 20 MINS.
	11:50 - 12:00	0.17	ALL	44	С	Р		D/O CBP @ 5725' IN 10 MINS, HAD 150 PSI. INCREASE
	12:00 - 13:15	1.25	ALL	44	D	Р		CBP STUCK IN CSG COLLAR, D/O CBP, FELL THROUGH, LD PWR SWVL, PU & RIH 49 JTS. 2-3/8 L-80 TBG, TAG SCALE @ 7229',

#### Sundry Number: 13802 API Well Number: 43047504980000 **US ROCKIES REGION Operation Summary Report** Spud Conductor: 2/17/2010 Spud Date: 2/20/2010 Well: BONANZA 1023-8J3 YELLOW Project: UTAH-UINTAH Site: BONANZA 1023-8J PAD Rig Name No: LEED 698/698, LEED 465/465 Event: WELL WORK EXPENSE End Date: 3/16/2011 Start Date: 3/9/2011 UWI: NW/SE/0/10/S/23/E/8/0/0/6/PM/S/1,579.00/E/0/2,247.00/0/0 Active Datum: DFE @0.00ft (above Mean Sea Level) Date Code Time Duration Phase Sub P/U MD From Operation Start-End (hr) Code (ft) 13:15 - 14:30 Р 1.25 ALL 31 -1 POOH 49 JTS. 2-3/8 TBG, KILL TBG W/ 10 BBLS, REMOVE TSF, RIH 49 JTS. TAG SCALE @ 7229', RU PWR SWVL, 14:30 - 15:00 ALL 0.50 31 Ν Р INSTALL TSF, BROKE CIRC IN 30 MINS, C/O F 7229 TO 7279' FELL THROUGH, LD PWR SWVL, 15:00 - 15:20 0.33 ALL Р PU & RIH 11 JTS. TAG SCALE @ 7586', RU PWR 31 1 15:20 - 16:50 1.50 ALL Ν Ρ C/O SCALE F/ 7586' TO 7601' FELL THROUGH, RIH & TAG 8145', (113' BELOW BTM PERF) CIRC HOLE CLEAN. RD PWR SWVL. 16:50 - 18:00 1.17 ALL 31 Ρ POOH & LD 18 JTS. ON TRAILER, & 10 JTS. IN DERRICK, REMOVE TSF, RIH 10 JTS. DROP BALL, PUMP OFF BIT W/ 5 BBLS, & 1700 PSI. SWI, SDFN. 7:00 - 7:30 3/16/2011 0.50 ALL Ρ 48 HSM, REVIEW BROACHING TBG. 7:30 - 10:00 Р 2.50 ALL 31 CONTROL TBG W/ 10 BBLS, RU SWAB EQUIPMENT, RIH W/ 1.9 & BROACH TBG, RD SWAB EQUIPMENT, LAND TBG HANGER, RD FLOOR & TBG EQUIPMENT, ND BOPS, NU WH, RDMO. MOVE RIG TO SOUTHMAN CANYON 923-31K. TBG DETAIL HANGER-----.83" 240 JTS. L-80 TBG @-----7567.74' POBS & XN 1.875-----2.20' -----7583.77' EOT @----WLTR. 0 BBLS TOP PERF @ 5770' BTM PERF @ 8032' C/O TO 8145'

SIAILOLOIAH	
DEPARTMENT OF NATURAL RESOURCES	s
DIVISION OF OIL, GAS AND MININ	G

<del></del>			ENTITY ACTION	FORM	·		** ***********************************	
)naratar:	KERR	McGEE OIL & GAS ON	ISHORE LP					2005
Operator:		ox 173779	TOTIONE EI	Оре	erator Ac	count Nu	ımber: _	N 2995
\ddress:	-			-				
	city DE			-				
	state C	0	<sub>zip</sub> 80217	_	P	hone Nu	mber:	(720) 929-6029
<b>W</b>				_				
Weil 1 API Nu	mber	NA/AJI	Name	1 66		T =	<u> </u>	
See A		1		QQ	Sec	Twp	Rng	County
		See Atchm	r		<u> </u>			
Action	Code	Current Entity Number	New Entity Number	S	pud Da	te		tity Assignment Effective Date
		99999	12519				<u> </u>	1112012
Commen	ts: Diagr	o ooo otteebee all all all		<u>.</u>			<u> </u>	1115015
i - ve no		e see attachment with	list of Wells in the Pon	derosa Uı	nit.		513	30 12012
WSM	1/17							30 10010
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API Nu	mber	Well	Name	QQ	Sec	Twp	Rng	County
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Comment	ts:							
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Well 3								
API Nu	mber	Well	Name	QQ	Sec	Twp	Rng	County
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Action	Code	Current Entity	New Entity	-	pud Dat	·^	F"4	L
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Comment								
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TION CODE								
A - Estat	olish new e	ntity for new well (single v	well only)	Ca	ra Mahle	r		
B - Add :	new well to	existing entity (group or a	unit well)	Nam	e (Please	Print)		
C - Re-a:	ssign well t ssign well t	rom one existing entity to	another existing entity	<del></del>				
E - Other	r (Explain i	rom one existing entity to n 'comments' section)	RECEIVED		ature GULATO	DV ANA	I VOT	E/04/0040
	, ,			Title		- AINA	LIJI	5/21/2012
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well name	sec	twp	rng	api	entity	le	ease	well	stat	qtr_qtr	bhl	surf zone	a_stat	I_num	op_no
SOUTHMAN CANYON 31-3	31	090S	230E	4304734726	13717		1	GW	Р	SENW		1 WSMVD	P	U-33433	N2995
SOUTHMAN CANYON 31-4	31	090S	230E	4304734727	13742			GW	S	SESW		1 WSMVD	S	UTU-33433	N2995
SOUTHMAN CYN 31-2X (RIG SKID)	31	0908	230E	4304734898	13755		1	GW	Р	NWNW		1 WSMVD	Р	U-33433	N2995
SOUTHMAN CYN 923-31J	31	090S	230E	4304735149				GW	Р	NWSE		1 MVRD	Р	U-33433	N2995
SOUTHMAN CYN 923-31B	31	0908	230E	4304735150	<del></del>			GW	Р	NWNE		1 MVRD	Р	U-33433	N2995
SOUTHMAN CYN 923-31P	31	0908	230E	4304735288	14037			GW	Р	SESE		1 WSMVD	Р	UTU-33433	N2995
SOUTHMAN CYN 923-31H	31	090S	230E	4304735336	14157			GW	Р	SENE		1 WSMVD	Р	U-33433	N2995
SOUTHMAN CYN 923-310	31	090S	230E	4304737205			1	GW	Р	SWSE		1 MVRD	Р	UTU-33433	N2995
SOUTHMAN CYN 923-31K	31	090S	230E	4304737206	16503		1	GW	Р	NESW		1 WSMVD	Р	UTU-33433	N2995
SOUTHMAN CYN 923-31G	31	090S	230E	4304737208	16313		1	GW	Р	SWNE		1 WSMVD	Р	UTU-33433	N2995
SOUTHMAN CYN 923-31E	31	0908	230E	4304737209	16521		1	GW	Р	SWNW		1 WSMVD	Р	UTU-33433	N2995
SOUTHMAN CYN 923-31A	31	090S	230E	4304737210	16472		1	GW	Р	NENE		1 WSMVD	Р	UTU-33433	N2995
SOUTHMAN CYN 923-31C	31	090S	230E	4304737227	16522		1	GW	Р	NENW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-1G	01	100S	230E	4304735512	14458		1	GW	Р	SWNE		1 WSMVD	Р	U-40736	N2995
BONANZA 1023-1A	01	100S	230E	4304735717	14526		1	GW	Р	NENE		1 WSMVD	Р	U-40736	N2995
BONANZA 1023-1E	01	100S	230E	4304735745	14524		1	GW	Р	SWNW		1 WSMVD	Р	U-40736	N2995
BONANZA 1023-1C	01	100S	230E	4304735754	14684		1	GW	Р	NENW		1 MVRD	Р	U-40736	N2995
BONANZA 1023-1K	01	100S	230E	4304735755	15403		1	GW	Р	NESW		1 MVRD	Р	U-38423	N2995
BONANZA 1023-1F	01	100S	230E	4304737379	16872		1	GW	Р	SENW		1 MVRD	Р	UTU-40736	N2995
BONANZA 1023-1B	01	100S	230E	4304737380	16733		1	GW	Р	NWNE		1 MVRD	Р	UTU-40736	N2995
BONANZA 1023-1D	01	100S	230E	4304737381	16873		1	GW	Р	NWNW		1 MVRD	Р	UTU-40736	N2995
BONANZA 1023-1H	01	100S	230E	4304737430	16901		1	GW	Р	SENE		1 MVRD	Р	UTU-40736	N2995
BONANZA 1023-1L	01	100S	230E	4304738300	16735		1	GW	Р	NWSW		1 MVRD	Р	UTU-38423	N2995
BONANZA 1023-1J	01	100S	230E	4304738302	16871		1	GW	Р	NWSE		1 MVRD	Р	UTU-40736	N2995
BONANZA 1023-1I	01	100S	230E	4304738810	16750		1	GW	Р	NESE		1 MVRD	Р	UTU-40736	N2995
BONANZA 1023-2E	02	100S	230E	4304735345	14085		3	GW	Р	SWNW		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2C	02	100S	230E	4304735346	14084		3	GW	Р	NENW		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2A	02	100S	230E	4304735347	14068		3	GW	Р	NENE		3 MVRD	Р	ML-47062	N2995
BONANZA 1023-2G	02	100S	230E	4304735661	14291		3 (	GW	Р	SWNE		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-20	02	100S	230E	4304735662	14289		3 (	GW	Р	SWSE		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2I	02	100S	230E	4304735663	14290		3 (	GW	S	NESE		3 WSMVD	S	ML-47062	N2995
BONANZA 1023-2MX	02	100S	230E	4304736092	14730		3 (	GW	Р	swsw		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2H	02	100S	230E	4304737093	16004		3 (	GW	Р	SENE		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2D	02	100S	230E	4304737094	15460		3 (	GW	Р	NWNW		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2B	02	100S	230E	4304737095	15783		3 (	GW	Р	NWNE		3 MVRD	Р	ML-47062	N2995
BONANZA 1023-2P	02	100S	230E	4304737223	15970		3 (	GW	Р	SESE		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2N	02	100S	230E	4304737224	15887		3 (	GW	Р	SESW		3 MVRD	Р	ML-47062	N2995
BONANZA 1023-2L	02		230E	4304737225	15833			ЭW	Р	NWSW		3 WSMVD		ML-47062	N2995
BONANZA 1023-2F	02		230E	4304737226	15386				Р	SENW		3 WSMVD	+	ML-47062	N2995
BONANZA 1023-2D-4	02		230E	4304738761	16033				Р	NWNW	-	3 WSMVD		ML-47062	N2995
BONANZA 1023-20-1	02	100S	230E	4304738762	16013				Р	SWSE		3 WSMVD	+	ML-47062	N2995
BONANZA 1023-2H3CS	02		230E	4304750344	17426				Р	1	D	3 MVRD		ML 47062	N2995
BONANZA 1023-2G3BS	02	100S	230E	4304750345	17428				Р		D	3 MVRD	·i	ML 47062	N2995
BONANZA 1023-2G2CS	02		230E	4304750346	17429				Р		D	3 MVRD		ML 47062	N2995
BONANZA 1023-2G1BS	02	<del></del>	230E	4304750347	17427				Р	· · · · · · · · · · · · · · · · · · ·	D	3 MVRD		ML 47062	N2995

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BONANZA 1023-2M1S	02	100S	230E	4304750379	17443	3 GW	Р	SENW	D	3 MVRD	P	ML 47062	N2995
BONANZA 1023-2L2S	02	100S	230E	4304750380	17444	3 GW	Р	SENW	D	3 MVRD	Р	ML 47062	N2995
BONANZA 1023-2K4S	02	100S	230E	4304750381	17446	3 GW	Р	SENW	D	3 MVRD	Р	ML 47062	N2995
BONANZA 1023-2K1S	02	100S	230E	4304750382	17445	3 GW	Р	SENW	D	3 WSMVD	Р	ML 47062	N2995
BONANZA 4-6 🚁	04	100S	230E	4304734751	13841	1 GW	Р	NESW	İ	1 MNCS	Р	UTU-33433	N2995
BONANZA 1023-4A	04	100S	230E	4304735360	14261	1 GW	Р	NENE		1 WSMVD	Р	U-33433	N2995
BONANZA 1023-4E	04	100S	230E	4304735392	14155	1 GW	P	SWNW		1 WSMVD	Р	U-33433	N2995
BONANZA 1023-4C	04	100S	230E	4304735437	14252	1 GW	Р	NENW		1 WSMVD	Р	U-33433	N2995
BONANZA 1023-4M	04	100S	230E	4304735629	14930	1 GW	Р	SWSW		1 WSMVD	Р	U-33433	N2995
BONANZA 1023-40	04	100S	230E	4304735688	15111	1 GW	P	SWSE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-4I	04	100S	230E	4304735689	14446	1 GW	Р	NESE		1 MVRD	Р	UTU-33433	N2995
BONANZA 1023-4G	04	100S	230E	4304735746	14445	1 GW	Р	SWNE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-4D	04	100S	230E	4304737315	16352	1 GW	Р	NWNW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-4H	04	100S	230E	4304737317	16318	1 GW	Р	SENE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-4B	04	100S	230E	4304737328	16351	1 GW	Р	NWNE		1 MVRD	Р	UTU-33433	N2995
BONANZA 1023-4L	04	100S	230E	4304738211	16393	1 GW	Р	NWSW		1 MVRD	Р	UTU-33433	N2995
BONANZA 1023-4P	04	100S	230E	4304738212	16442	1 GW	Р	SESE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-4N	04	100S	230E	4304738303	16395	1 GW	Р	SESW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-4FX (RIGSKID)	04	100S	230E	4304739918	16356	1 GW	Р	SENW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-50	05	100S	230E	4304735438	14297	1 GW	Р	SWSE		1 WSMVD	Р	U-33433	N2995
BONANZA 1023-5AX (RIGSKID)	05	100S	230E	4304735809	14243	1 GW	Р	NENE		1 WSMVD	Р	U-33433	N2995
BONANZA 1023-5C	05	100S	230E	4304736176	14729	1 GW	Р	NENW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5G	05	100S	230E	4304736177	14700	1 GW	Р	SWNE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5M	05	100S	230E	4304736178	14699	1 GW	Р	SWSW		1 WSMVD	Р	UTU-73450	N2995
BONANZA 1023-5K	05	100S	230E	4304736741	15922	1 GW	Р	NESW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5B	05	100S	230E	4304737318	16904	1 GW	Р	NWNE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5E	05	100S	230E	4304737319	16824	1 GW	Р	SWNW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5H	05	100S	230E	4304737320	16793	1 GW	Р	SENE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5N	05	100S	230E	4304737321	16732	1 GW	Р	SESW	-	1 WSMVD	Р	UTU-73450	N2995
BONANZA 1023-5L	05	100S	230E	4304737322	16825	1 GW	Р	NWSW		1 MVRD	Р	UTU-33433	N2995
BONANZA 1023-5J	05	100S	230E	4304737428	17055	1 GW	Р	NWSE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5P	05	100S	230E	4304738213	16795	1 GW	Р	SESE		1 MVRD	Р	UTU-33433	N2995
BONANZA 1023-5N-1	05	100S	230E	4304738911	17060	1 GW	Р	SESW		1 WSMVD	Р	UTU-73450	N2995
BONANZA 1023-5PS	05	100S	230E	4304750169	17323	1 GW	Р	NESE	D	1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5G2AS	05	100S	230E	4304750486	17459	1 GW	Р	SWNE	D	1 MVRD	Р	UTU 33433	N2995
BONANZA 1023-5G2CS	05	100S	230E	4304750487	17462	1 GW	Р	SWNE	D	1 MVRD	Р	UTU 33433	N2995
BONANZA 1023-5G3BS	05	100S	230E	4304750488	17461	1 GW	Р	SWNE	D	1 MVRD	P	UTU 33433	N2995
BONANZA 1023-5G3CS	05	100S	230E	4304750489	17460	1 GW	Р	SWNE	D	1 MVRD	Р	UTU 33433	N2995
BONANZA 1023-5N4AS	05	100S	230E	4304752080	18484	1 GW	DRL	SWSW	D	1 WSMVD	DRL	UTU73450	N2995
BONANZA 1023-8C2DS	05	100S	230E	4304752081	18507	1 GW	DRL	swsw	D	1 WSMVD	DRL	UTU37355	N2995
BONANZA 6-2	06	100S	230E	4304734843	13796	1 GW	TA	NESW		1 WSMVD	TA	UTU-38419	N2995
BONANZA 1023-6C	06	100S	230E	4304735153	13951	1 GW	Р	NENW		1 MVRD	Р	U-38419	N2995
BONANZA 1023-6E	06	1008	230E	4304735358	14170	1 GW	Р	SWNW		1 MVRD	Р	U-38419	N2995
BONANZA 1023-6M	06	100S	230E	4304735359	14233	1 GW	Р	SWSW		1 WSMVD	Р	U-38419	N2995
BONANZA 1023-6G	06	100S	230E	4304735439	14221	1 GW	Р	SWNE		1 WSMVD	Р	UTU-38419	N2995
BONANZA 1023-60	06	100S	230E	4304735630	14425	1 GW	TA	SWSE		1 WSMVD	TA	U-38419	N2995

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DOMANZA 1022 CA	06	1000	220⊏	4204726067	14775	4	C\\\	Р	NENE	1	1 WSMVD	Р	11 22422	N2995
BONANZA 1023-6A	06	1008	230E	4304736067	14775		GW	P	NENE SESW		1 WSMVD	P	U-33433 UTU-38419	N2995 N2995
BONANZA 1023-6N	06	1008	230E	4304737211 4304737212	15672 15673	- <del></del>	GW	P	NWSW		1 WSMVD	P	UTU-38419	N2995 N2995
BONANZA 1023-6L	06	1008	230E		15620		GW	P	NWSE	1	1 WSMVD	P	UTU-38419	N2995 N2995
BONANZA 1023-6J	06	1008	230E	4304737213			<u> </u>			-				
BONANZA 1023-6F	06	1008	230E	4304737214	15576		GW	TA	SENW	1	1 WSMVD	TA	UTU-38419	N2995
BONANZA 1023-6P	06	1008	230E	4304737323	16794		GW	P	SESE	-	1 WSMVD	Р	UTU-38419	N2995
BONANZA 1023-6H	06	100\$	230E	4304737324	16798		GW	S	SENE	-	1 WSMVD	S	UTU-33433	N2995
BONANZA 1023-6D	06	1008	230E	4304737429	17020		GW	P	NWNW	-	1 WSMVD	P	UTU-38419	N2995
BONANZA 1023-6B	06	100S	230E	4304740398	18291		GW	P	NWNE	ļ	1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-6M1BS	06	100S	230E	4304750452	17578		GW	P	NWSW	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-6N1AS	06	100\$	230E	4304750453	17581	<del>ii</del>	GW	Р	NWSW	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-6N1CS	06	100S	230E	4304750454	17580		GW	Р	NWSW	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-6N4BS	06	100S	230E	4304750455	17579		GW	Р	NWSW	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-612S	06	100S	230E	4304750457	17790		GW	Р	NESE	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-614S	06	100S	230E	4304750458	17792		GW	Р	NESE	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-6J3S	06	100S	230E	4304750459	17791	1	GW	Р	NESE	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-6P1S	06	100S	230E	4304750460	17793	1	GW	Р	NESE	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-6A2CS	06	100S	230E	4304751430	18292	1	GW	Р	NWNE	D ·	1 WSMVD	Р	UTU33433	N2995
BONANZA 1023-6B4BS	06	100S	230E	4304751431	18293	1	GW	Р	NWNE	D	1 WSMVD	Р	UTU33433	N2995
BONANZA 1023-6B4CS	06	100S	230E	4304751432	18294	1	GW	Р	NWNE	D	1 WSMVD	Р	UTU33433	N2995
BONANZA 1023-6C4BS	06	100S	230E	4304751449	18318	1	GW	Р	NENW	D	1 WSMVD	Р	UTU38419	N2995
BONANZA 1023-6D1DS	06	1008	230E	4304751451	18316		GW	Р	NENW	D	1 WSMVD	Р	UTU38419	N2995
FLAT MESA FEDERAL 2-7	07	1008	230E	4304730545	18244		GW	S	NENW		1 WSMVD	S	U-38420	N2995
BONANZA 1023-7B	07	100S	230E	4304735172	13943		GW	Р	NWNE		1 MVRD	Р	U-38420	N2995
BONANZA 1023-7L	07	100S	230E	4304735289	14054		GW	Р	NWSW		1 WSMVD	Р	U-38420	N2995
BONANZA 1023-7D	07	100S	230E	4304735393	14171		GW	Р	NWNW		1 WSMVD	P	U-38420	N2995
BONANZA 1023-7P	07	100S	230E	4304735510	14296		GW	Р	SESE		1 WSMVD	Р	U-38420	N2995
BONANZA 1023-7H	07	100S	230E	4304736742	15921		GW	P	SENE	1	1 WSMVD	P	UTU-38420	N2995
BONANZA 1023-7NX (RIGSKID)	07	100S	230E	4304736932	15923		GW	P	SESW		1 WSMVD	P		N2995
BONANZA 1023-7M	07	100S	230E	4304737215	16715		GW	P	SWSW		1 WSMVD	P		N2995
BONANZA 1023-7K	07	1005	230E	4304737216	16714		GW	P	NESW		1 WSMVD	P	UTU-38420	N2995
BONANZA 1023-7E	07	1005	230E	4304737217	16870		GW	P	SWNW		1 WSMVD	P	UTU-38420	N2995
BONANZA 1023-7G	07	1005	230E	4304737326	16765		GW	P	SWNE		1 WSMVD	P	UTU-38420	N2995
BONANZA 1023-7A	07	1005	230E	4304737327	16796		GW	P	NENE		1 WSMVD	P	UTU-38420	N2995
BONANZA 1023-7A	07	1005	230E	4304738304	16713		GW	P	SWSE		1 MVRD	P	UTU-38420	N2995
BONANZA 1023-70 BONANZA 1023-7B-3	07	1003	230E	4304738912	17016		GW	P	NWNE		1 WSMVD	P	UTU-38420	N2995
		100S	230E				GW	Р	NWSE	-	1 WSMVD	P		N2995
BONANZA 1023-07JT	07			4304739390	16869 17494		GW	P		D		P		N2995
BONANZA 1023-7J2AS	07	100S	230E	4304750474	-					+ +				
BONANZA 1023-7J2DS	07	100\$	230E	4304750475	17495	<del>-</del>	GW	P		D	1 WSMVD	Р		N2995
BONANZA 1023-7L3DS	07	1008	230E	4304750476	17939		GW	Р		D	1 WSMVD	P		N2995
BONANZA 1023-7M2AS	07	1008	230E	4304750477	17942		GW	P	· i	D	1 WSMVD	Р		N2995
BONANZA 1023-7N2AS	07	100S	230E	4304750478	17940		GW	Р		D	1 WSMVD	P		N2995
BONANZA 1023-7N2DS	07	100S	230E	4304750479	17941			P	NWSW	D	1 WSMVD	P		N2995
BONANZA 1023-704S	07	100S	230E	4304750480	17918		GW	P	SESE	D	1 WSMVD	Р		N2995
BONANZA 1023-7P2S	07	100S	230E	4304750482	17919			Р	SESE	D	1 WSMVD	Р		N2995
BONANZA 8-2	08	100S	230E	4304734087	13851	1 (	GW	Р	SESE		1 MVRD	Р	U-37355	N2995

BONANZA 8-3	08	100S	230E	4304734770	13843	1 GW	Р	NWNW		1 MVRD	Р	U-37355	N2995
BONANZA 1023-8A	08	100S	230E	4304735718	14932	1 GW	Р	NENE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8L	08	100S	230E	4304735719	14876	1 GW	Р	NWSW		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8N	08	100S	230E	4304735720	15104	1 GW	Р	SESW	Ì	1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8F	08	100S	230E	4304735989	14877	1 GW	S	SENW		1 WSMVD	s	UTU-37355	N2995
BONANZA 1023-8I	08	100S	230E	4304738215	16358	1 GW	Р	NESE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8K	08	100S	230E	4304738216	16354	1 GW	Р	NESW		1 WSMVD	Р		N2995
BONANZA 1023-8M	08	1008	230E	4304738217	16564	1 GW	Р	swsw	1	1 MVRD	Р		N2995
BONANZA 1023-8G	08	100S	230E	4304738218	16903	1 GW	Р	SWNE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8E	08	100S	230E	4304738219	16397	1 GW	Р	SWNW		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8C	08	100S	230E	4304738220	16355	1 GW	Р	NENW		1 WSMVD	Р		N2995
BONANZA 1023-8B	08	100S	230E	4304738221	16292	1 GW	Р	NWNE	+	1 WSMVD	Р		N2995
BONANZA 1023-8H	08	100S	230E	4304738222	16353	1 GW	P	SENE	-	1 WSMVD	P	UTU-37355	N2995
BONANZA 1023-80	08	100S	230E	4304738305	16392	1 GW	Р	SWSE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8B-4	08	100S	230E	4304738914	17019	1 GW	P	NWNE		1 WSMVD	Р		N2995
BONANZA 1023-8A1DS	08	100S	230E	4304750481	17518	1 GW	P	NENE	D	1 WSMVD	P		N2995
BONANZA 1023-8A4BS	08	100S	230E	4304750483	17519	1 GW	P	NENE	D	1 WSMVD	P		N2995
BONANZA 1023-8B1AS	08	100S	230E	4304750484	17520	1 GW	P	NENE	D	1 WSMVD	Р		N2995
BONANZA 1023-8B2AS	08	1008	230E	4304750485	17521	1 GW	P	NENE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-802S	08	1005	230E	4304750495	17511	1 GW	P	NWSE	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8J1S	08	100S	230E	4304750496	17509	1 GW	P	NWSE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-803S	08	100S	230E	4304750497	17512	1 GW	P	NWSE	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8J3	08	100S	230E	4304750498	17510	1 GW	Р	NWSE	-	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8C4CS	08	100S	230E	4304750499	17544	1 GW	P	NENW	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8D2DS	08	100S	230E	4304750500	17546	1 GW	P	NENW	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8D3DS	08	100S	230E	4304750501	17545	1 GW	P	NENW	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8F3DS	08	100S	230E	4304750502	17543	1 GW	Р	NENW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8A4CS	08	100S	230E	4304751131	18169	1 GW	Р	NWNE	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8B3BS	08	100S	230E	4304751132	18167	1 GW	P	NWNE	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8C1AS	08	100S	230E	4304751133	18166	1 GW	Р	NWNE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8G3AS	08	1005	230E	4304751134	18168	1 GW	P	NWNE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8E2AS	08	100S	230E	4304751135	18227	1 GW	Р	SENW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8F3BS	08	100S	230E	4304751136	18227	1 GW	P	SENW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8F4AS	08	100S	230E	4304751137	18224	1 GW	Р		D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8F4DS	08	100S	230E	4304751138	18225	1 GW	Р	SENW	D	1 WSMVD	Р		N2995
BONANZA 1023-8J2CS	08	100S	230E	4304751139	18226	1 GW	Р	SENW	D	1 WSMVD	Р		N2995
BONANZA 1023-8G4DS	08	1005	230E	4304751140	18144	1 GW	P	NESE	D	1 WSMVD	P		N2995
BONANZA 1023-8H2DS	08		230E	4304751141	18142		P	NESE	D	1 WSMVD	1 -	UTU 37355	
BONANZA 1023-8H3DS	08		230E	4304751142	18143	1 GW	P	NESE	D	1 WSMVD	Р		N2995
BONANZA 1023-8H4DS	08	100S	230E	4304751143	18141	1 GW	P	NESE	D	1 WSMVD	Р	NAME OF THE OWNER OWNER O	N2995
BONANZA 1023-814BS	08		230E	4304751144	18155	1 GW	P	NESE	D	1 WSMVD	P		N2995
BONANZA 1023-8J4BS	08	1005	230E	4304751145	18154	1 GW	P	NESE	D	1 WSMVD	P		N2995
BONANZA 1023-891AS	08	1005	230E	4304751146	18156	1 GW	P	NESE	D	1 WSMVD	P		N2995
BONANZA 1023-8P2BS	08	1	230E	4304751147	18153	1 GW	P	NESE	D	1 WSMVD	P		N2995
BONANZA 1023-8P4AS	08		230E	4304751148	18157	1 GW	P	NESE	D	1 WSMVD	P		N2995
BONANZA 1023-8E2DS	08		230E	4304751149	18201	1 GW	P		D	1 WSMVD	P	UTU 37355	
55.44 (14E) 1 10E0-0EED0		, 555									; •	0.000	

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BONANZA 1023-8E3DS	80	100S	230E	4304751150	18200	1 0		Р	NWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8K1CS	80	100S	230E	4304751151	18199	1 0		Р	NWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8K4CS	08	100S	230E	4304751152	18198	1 0		Р	NWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8L3DS	80	100S	230E	4304751153	18197	1 0		Р	NWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8M2AS	80	100S	230E	4304751154	18217	1 0		Р	swsw	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8M2DS	80	100S	230E	4304751155	18216	1 0		Р	SWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8N2BS	80	100S	230E	4304751156	18218	1 0		Р	SWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-803CS	80	100S	230E	4304751157	18254	1 0		Р	SWSE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8N3DS	80	100S	230E	4304751158	18215		W	Р	SWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-804AS	08	100S	230E	4304751159	18252	1 G		Р	SWSE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8P2CS	08	100S	230E	4304751160	18251	1 G		Р	SWSE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8P3CS	08	100S	230E	4304751161	18253	1 G		Р	SWSE	D	1 WSMVD	Р	UTU 37355	N2995
CANYON FEDERAL 2-9	09	100S	230E	4304731504	1468	1 G		Р	NENW	1	1 MVRD	Р	U-37355	N2995
SOUTHMAN CANYON 9-3-M	09	100S	230E	4304732540	11767	1 G		S	SWSW		1 MVRD	S	UTU-37355	N2995
SOUTHMAN CANYON 9-4-J	09	100S	230E	4304732541	11685	1 G		S	NWSE		1 MVRD	S	UTU-37355	N2995
BONANZA 9-6	09	100S	230E	4304734771	13852	1 G		P	NWNE		1 MVRD	Р	U-37355	N2995
BONANZA 9-5	09	100S	230E	4304734866	13892	1 G	W	Р	SESW		1 MVRD	Р	U-37355	N2995
BONANZA 1023-9E	09	100S	230E	4304735620	14931	1 G		Р	SWNW		1 WSMVD	Р	U-37355	N2995
BONANZA 1023-9I	09	100S	230E	4304738223	16766	1 G	W	Р	NESE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-9D	09	100S	230E	4304738306	16398	1 G	W	Р	NWNW		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-9J	09	100S	230E	4304738811	16989	1 G		Р	NWSE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-9B3BS	09	100S	230E	4304750503	17965	1 G	W	Р	SENE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-9B3CS	09	100S	230E	4304750504	17968	1 G	W	Р	SENE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-9H2BS	09	100S	230E	4304750505	17966	1 G	W	Р	SENE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-9H2CS	09	100S	230E	4304750506	17967	1 G	W	Р	SENE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 10-2	10	100S	230E	4304734704	13782	1 G	W	Р	NWNW		1 MVRD	Р	U-72028	N2995
BONANZA 1023-10L	10	100S	230E	4304735660	15164	1 G	W	Р	NWSW		1 WSMVD	Р	U-38261	N2995
BONANZA 1023-10E	10	100S	230E	4304738224	16501	1 G	W	Р	SWNW		1 MVRD	Р	UTU-72028	N2995
BONANZA 1023-10C	10	100S	230E	4304738228	16500	1 G	W	Р	NENW		1 MVRD	Р	UTU-72028	N2995
BONANZA 1023-10C-4	10	100S	230E	4304738915	17015	1 G	W	Р	NENW		1 MVRD	Р	UTU-72028	N2995
BONANZA 11-2 🛠	11	100S	230E	4304734773	13768	1 G	W	Р	SWNW		1 MVMCS	Р	UTU-38425	N2995
BONANZA 1023-11K	11	100S	230E	4304735631	15132	1 G	W	Р	NESW		1 WSMVD	Р	UTU-38425	N2995
BONANZA 1023-11B	11	100S	230E	4304738230	16764	1 G	W	Р	NWNE		1 MVRD	Р	UTU-38425	N2995
BONANZA 1023-11F	11	100S	230E	4304738232	16797	1 G	W	Р	SENW		1 MVRD	Р	UTU-38425	N2995
BONANZA 1023-11D	11	100S	230E	4304738233	16711	1 G	W	Р	NWNW		1 MVRD	Р	UTU-38425	N2995
BONANZA 1023-11G	11	100S	230E	4304738235	16826	1 G	W	Р	SWNE		1 MVRD	Р	UTU-38425	N2995
BONANZA 1023-11C	11	100S	230E	4304738309	16736	1 G	W	Р	NENW		1 MVRD	Р	UTU-38425	N2995
BONANZA 1023-11J	11	100S	230E	4304738310	16839	1 G	W	Р	NWSE		1 WSMVD	Р	UTU-38424	N2995
BONANZA 1023-11N	11	100S	230E	4304738311	16646	1 G	W	Р	SESW		1 MVRD	Р	UTU-38424	N2995
BONANZA 1023-11M	11	100S	230E	4304738312	16687	1 G		Р	SWSW		1 MVRD	Р	UTU-38424	N2995
BONANZA 1023-11L	11	100S	230E	4304738812	16987	1 G	W	Р	NWSW		1 WSMVD	Р	UTU-38424	N2995
NSO FEDERAL 1-12	12	100S	230E	4304730560	1480	1 G		Р	NENW		1 MVRD	Р		N2995
WHITE RIVER 1-14	14	100S	230E	4304730481	1500	1 G		S	NENW		1 MVRD	S	U-38427	N2995
BONANZA 1023-14D	14	100S	230E	4304737030	16799	1 G		P	NWNW		1 MVRD	Р		N2995
BONANZA 1023-14C	14		230E	4304738299	16623	1 G		P	NENW			P		N2995
BONANZA FEDERAL 3-15	15	1008	230E	4304731278	8406	1 G	_	Р	NENW			Р	U-38428	N2995
DOIVAIVEAT EDETIVIE 0-10		1.550						•	1	<u> </u>		<u> </u>	,	

\* not moved into unit

BONANZA 1023-15H	15	100S	230E	4304738316	16688		1 GW	Р	SENE		1 MVRD	Р	UTU-38427	N2995
BONANZA 1023-15J	15	100S	230E	4304738817	16988	,	1 GW	Р	NWSE		1 MVRD	Р	UTU-38427	N2995
BONANZA 1023-15H4CS	15	100S	230E	4304750741	17492		1 GW	Р	NESE	D	1 MVRD	Р	UTU 38427	N2995
BONANZA 1023-15I2AS	15	100S	230E	4304750742	17493		1 GW	Р	NESE	D	1 WSMVD	Р	UTU 38427	N2995
BONANZA 1023-15I4BS	15	100S	230E	4304750743	17490		1 GW	Р	NESE	D	1 WSMVD	Р	UTU 38427	N2995
BONANZA 1023-15P1BS	15	100S	230E	4304750744	17491		I GW	Р	NESE	D	1 WSMVD	Р	UTU 38427	N2995
LOOKOUT POINT STATE 1-16	16	100S	230E	4304730544	1495	3	GW	Р	NESE		3 WSMVD	Р	ML-22186-A	N2995
BONANZA 1023-16J	16	100S	230E	4304737092	15987		GW	OPS	NWSE		3 WSMVD	OPS	ML-22186-A	N2995
BONANZA 1023-17B	17	100S	230E	4304735747	15165		I GW	Р	NWNE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-17C	17	100S	230E	4304738237	16585		I GW	Р	NENW		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-17D3S	17	100S	230E	4304750511	17943		GW	Р	NENW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-17E2S	17	100S	230E	4304750512	17944		GW	Р	NENW	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-17E3AS	17	100S	230E	4304750513	17945	1	GW	Р	NENW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-17E3CS	17	100S	230E	4304750514	17946	1	GW	Р	NENW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-18G	18	100S	230E	4304735621	14410	•	GW	Р	SWNE		1 WSMVD	Р	U-38241	N2995
BONANZA 1023-18B	18	100S	230E	4304735721	14395		GW	Р	NWNE		1 WSMVD	Р	U-38421	N2995
BONANZA 1023-18DX (RIGSKID)	18	100S	230E	4304736218	14668	1	GW	Р	NWNW		1 WSMVD	Р	U-38241	N2995
BONANZA 1023-18A	18	100S	230E	4304738243	16625	1	GW	Р	NENE		1 WSMVD	Р	UTU-38421	N2995
BONANZA 1023-18F	18	100S	230E	4304738244	16624	1	GW	Р	SENW		1 WSMVD	Р	UTU-38421	N2995
BONANZA 1023-18E	18	100S	230E	4304738245	16645	1	GW	Р	SWNW		1 MVRD	Р	UTU-38421	N2995
BONANZA 1023-18C	18	100S	230E	4304738246	16734	1	GW	Р	NENW		1 MVRD	Р	UTU-38421	N2995
BONANZA 1023-18G-1	18	100S	230E	4304738916	17135	1	GW	Р	SWNE		1 WSMVD	Р	UTU-38421	N2995
BONANZA 1023-18D3AS	18	100S	230E	4304750448	17498	. 1	GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18D3DS	18	100S	230E	4304750449	17499	1	GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18E2DS	18	100S	230E	4304750450	17497	1	GW	Р	SWNW	D	1 WSMVD	P	UTU 38421	N2995
BONANZA 1023-18E3AS	18	100S	230E	4304750451	17496	1	GW	Р	SENW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18L2S	18	100S	230E	4304750520	18111		GW	P	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18L3S	18	100S	230E	4304750521	18110	1	GW	P	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18K3AS	18	100S	230E	4304751061	18112	1	GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18K3BS	18	100S	230E	4304751063	18113	1	GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18M2AS	18	100S	230E	4304751064	18117	1	GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18M2DS	18	100S	230E	4304751065	18116	1	GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18N2AS	18	100S	230E	4304751066	18114		GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18N2DS	18	100S	230E	4304751067	18115	1	GW	Р	SWNW	D	1 WSMVD	P	UTU 38421	N2995
BONANZA 1023-10F	10	100S	230E	4304738225	16565		GW	Р	SENW		MVRD	Ρ	UTU 72028	N2995
BONANZA 1023-6D1AS	6	100S	230E	4304751450	18320		GW	Р	NENW	D	WSMVD	P	UTU 38419	N2995
BONANZA 1023-6C1CS	6	100S	230E	4304751448	18319		GW		NENW	D			UTU 38419	N2995
BONANZA 1023-6D3AS	6	100S	230E	4304751452	18317		GW	Р	NENW	D	WSMVD	Р	UTU 38419	N2995



# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

## **ENTITY ACTION FORM**

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

P.O. Box 173779

city DENVER

state CO zio 80217

Phone Number: \_(720) 929-6100

#### Well 1

API Number	Well	Name	QQ	Sec	Twp	Rng	County
4304750496	BONANZA 1023	-8J1S	NWSE	8	108	23E	UINTAH
Action Code	Current Entity Number	New Entity Number	S	Spud Date			ty Assignment ffective Date
A	99999	17509	2	2/17/2010		2	125/10

SPUD WELL LOCATION ON 2/17/2010 AT 09:00 HRS.

BHL = NWSE

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County	
4304750498	BONANZA 10	)23-8J3	NWSE	8	108	23E UINTAH		
Action Code	Current Entity Number	New Entity Number	Spud Date		te	Entity Assignment Effective Date		
A	99999	17510	2	2/17/2010		2/25/10		

#### Well 3

Well	Name	QQ         Sec         Twp           NWSE         8         10S           Spud Date           2/17/2010		Twp	Rng County 23E UINTAH		
BONANZA 10	)23-8O2S			108			
Current Entity Number	New Entity Number			te	Entity Assignment Effective Date		
99999	17511			2/25/10			
	BONANZA 10 Current Entity Number	Number Number	BONANZA 1023-802S NWSE  Current Entity New Entity S Number Number S	BONANZA 1023-802S NWSE 8  Current Entity New Entity Spud Date Number Number	BONANZA 1023-802S NWSE 8 10S  Current Entity Number Number Spud Date  Number Number	BONANZA 1023-802S  Current Entity Number  New Entity Number  Spud Date Entity Number  Overall Additional Control of the Contro	

Comments:

MIRU PETE MARTIN BUCKET RIG. WS771 V SPUD WELL LOCATION ON 2/17/2010 AT 13:00 HRS.

BHL = SWSE

## **ACTION CODES:**

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

RECEIVED

FEB 1 8 2010

**ANDY LYTLE** 

Name (Please Print)

Signature REGULATORY ANALYST

2/18/2010

Title

D-4-